

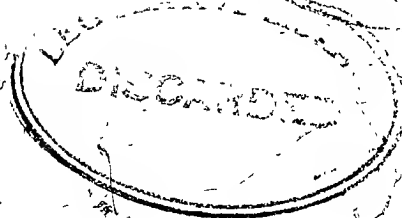
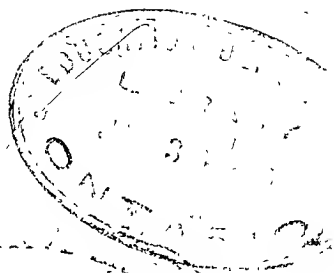
SUNNY MANITOBA

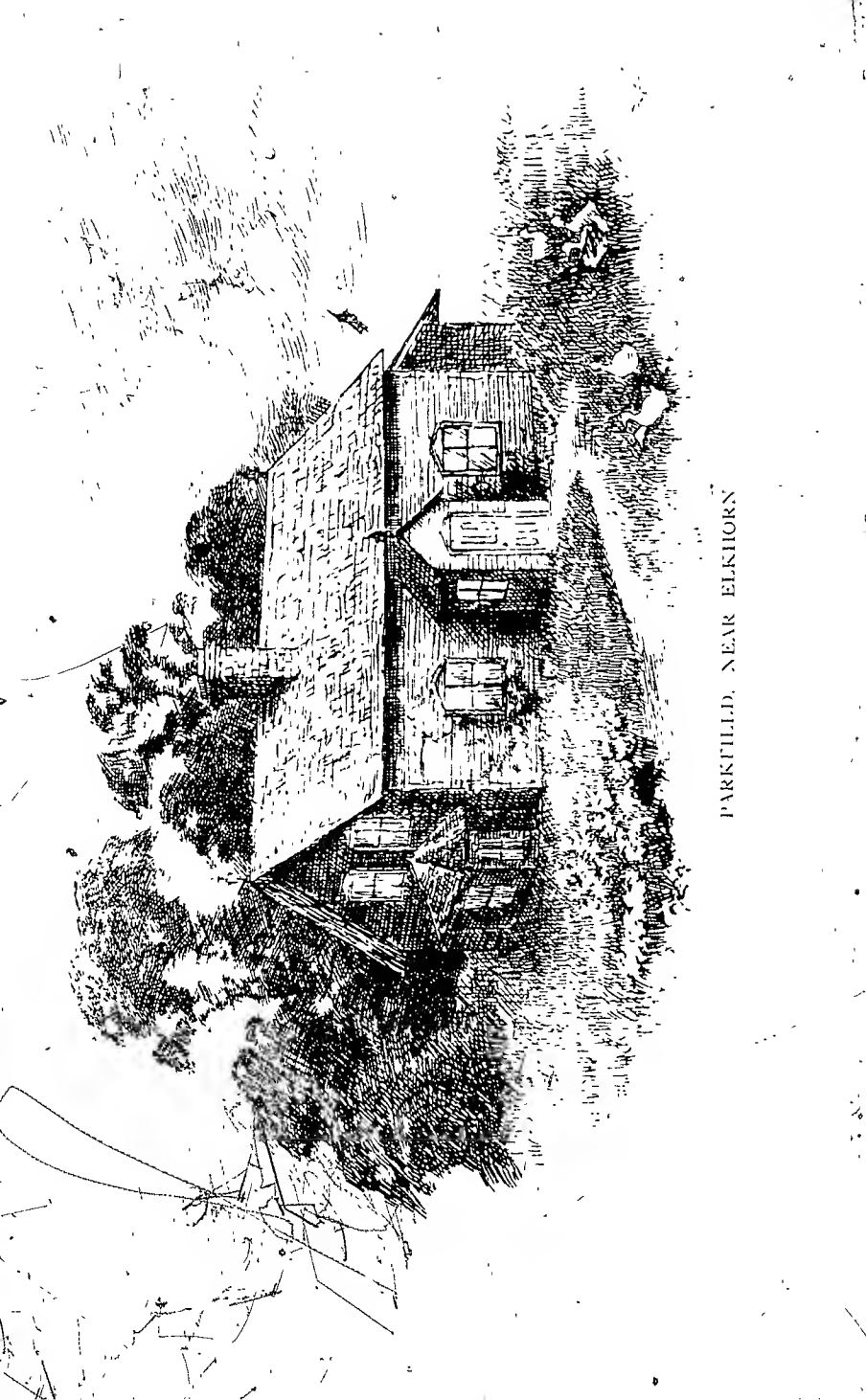


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PARKFIELD, NEAR ELKHORN

SUNNY MANITOBA

Its Peoples and its Industries

BY

ALFRED O. LEGGE

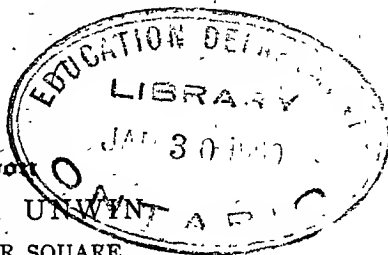
AUTHOR OF "THE UNPOPULAR KING," ETC., ETC

WITH MAP AND ILLUSTRATIONS

London

T. FISHER UNWIN
PATERNOSTER SQUARE

MDCCCXCHH



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To

MY SONS

ROBERT ERNEST AND ARTHUR OLIVER

IN MEMORY OF PLEASANT MONTHS PASSED

IN THEIR PRAIRIE HOMES, THIS VOLUME

IS AFFECTIONATELY

INSCRIBED

PREFACE.

IT is only necessary to say by way of preface that this volume is the outcome of personal observation, unbiased by the interests—real or supposed—of governments, railway companies, syndicates, or individuals.

It has been frequently represented to me that a veracious narrative of the experiences of an entirely independent and impartial observer of life in Manitoba would be welcomed by a large number of English people, other than those who contemplate emigration. The writing of that narrative has been to me a source of much pleasure; and, whilst it has been my first object to render it instructive and helpful to those who desire to find new homes in the Far West, it is my hope that a much larger class will discover in these pages something to interest as well as to inform their minds.

Official statistics have been used wherever they have been procurable. As regards purely agricultural matters, I am under the obligation to *The Nor-West Farmer*, an agricultural paper of a very high order. I have also been favoured with interviews by Ministers both of the Dominion and the Manitoban legislatures; by members of both Parliaments, and officials of the Canadian Pacific Railway; by all of whom, as well as by settlers of every class, both in the towns and on the prairie, valuable information has been willingly communicated. Where such information has been incorporated into my narrative, every effort has been made to ascertain that it was entirely reliable; and in almost every instance it has been endorsed by specialists, in whose judgment confidence could be placed.

If I succeed in removing some of the prevailing misconceptions, and in conveying accurate information respecting a much calumniated Province of our great Dependency of the West, I shall not have written in vain. But calumnies die hard. That, perhaps, is the best justification for a book, the sole purpose of which is, by stating facts as I found them, without partiality or exaggeration, to throw some light upon an interesting province, of which most Englishmen are in practical ignorance.

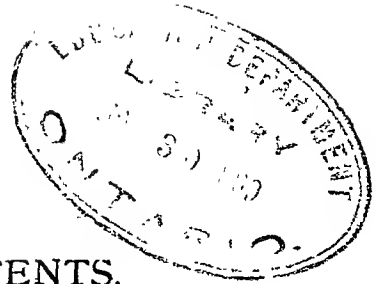


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Outline Map showing the position of MANITOBA in America.

EXPLANATIONS.

Railways Constructed.
Railways Projected.
Railway Stations,
Grain Elevators and Warehouses,
Schools,
Post Offices,
Trails,
Elevations above the Sea in feet,
thus, are from Railway Surveys
and apparently 28 feet lower
than by Geological Survey.

Municipal Boundaries.
A Section of 640 Acres or One Square Mile.

Plan of a Township showing
numbers of Sections,
Township numbers read North from International Boundary
Range numbers read East and West of Principal Meridian.

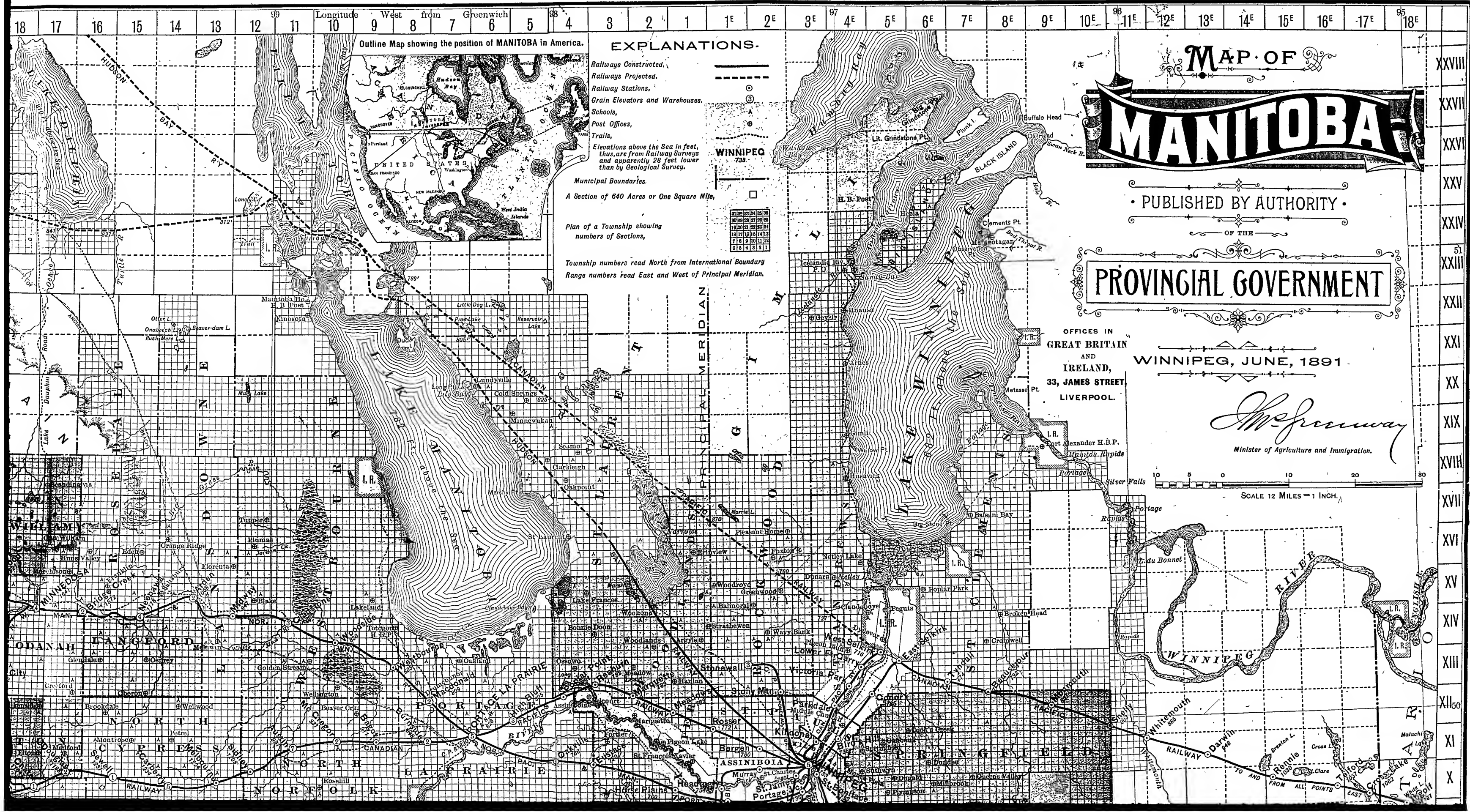
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A Section of 640 Acres or One Square Mile,

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Township numbers read North from International Boundary
Range numbers read East and West of Principal Meridian.

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Outline Map showing the position of MANITOBA in America.

EXPLANATIONS.

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WINNIPEG 738

Municipal Boundaries.
A Section of 640 Acres or One Square Mile.

Plan of a Township showing numbers of Sections.

Township numbers read North from International Boundary
Range numbers read East and West of Principal Meridian.

MAP OF
MANITOBA

PUBLISHED BY AUTHORITY.

PROVINCIAL GOVERNMENT

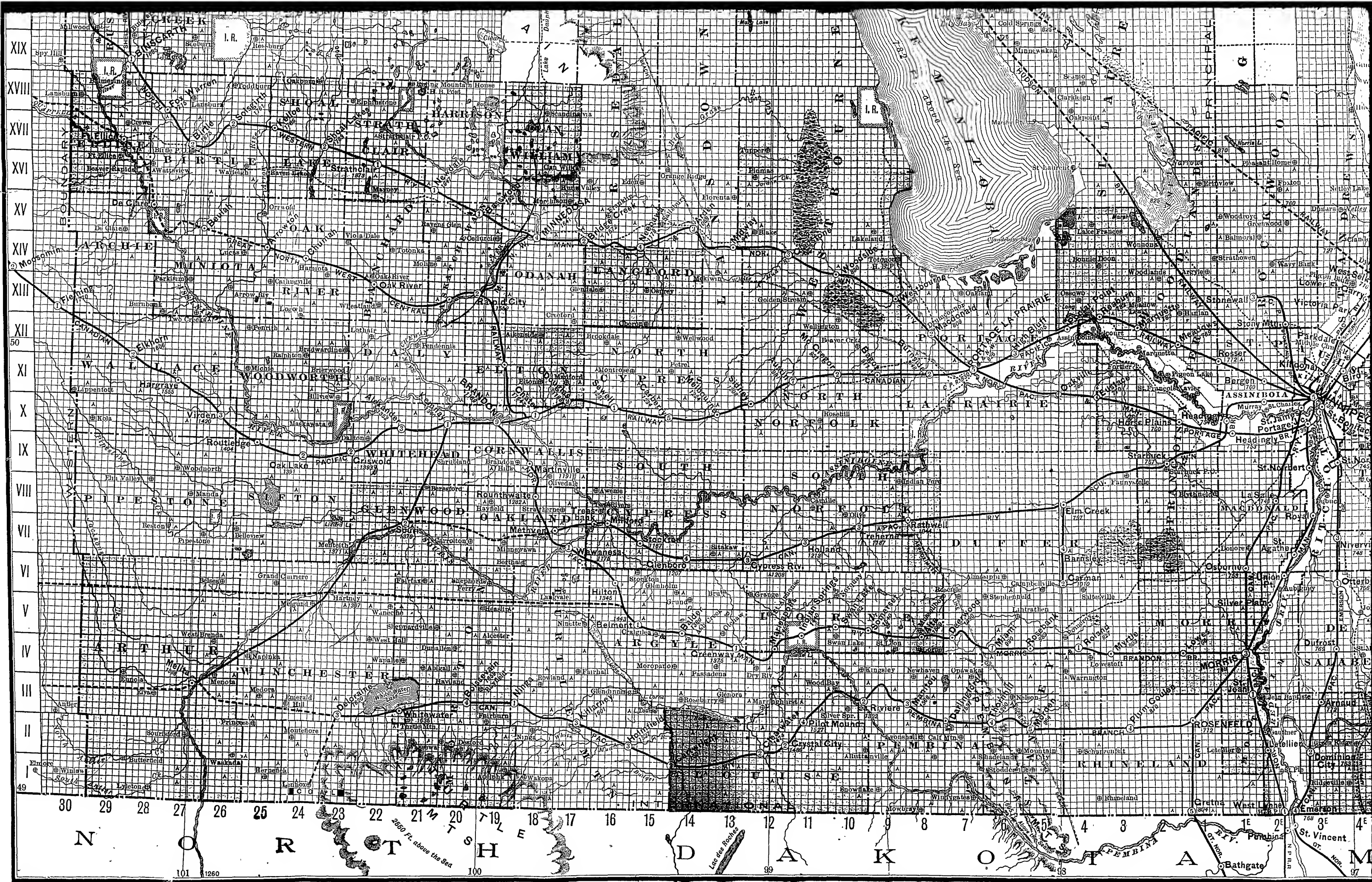
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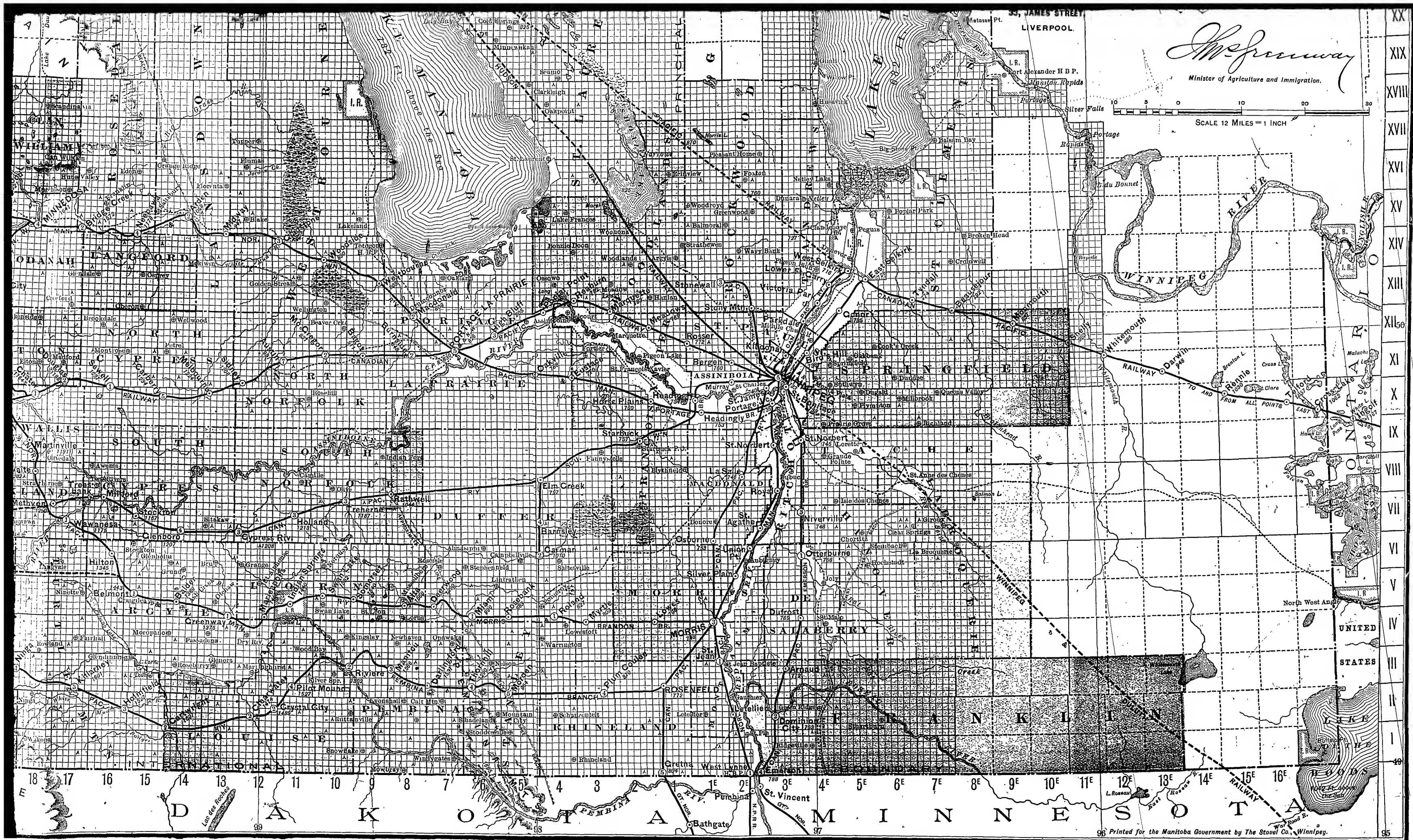
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SUNNY MANITOBA.

CHAPTER I.

THERE is probably no country or province in our vast Colonial Empire which has suffered more than Manitoba from extravagant and indiscriminate eulogy on the one hand, or excessive depreciation on the other. It is not—no land can be—an El Dorado where the sun never ceases to shine, or the soil to produce phenomenal crops as the result of a minimum of labour on the part of men without either aptitude or training for an honourable industry. “The Ohio and Illinois of Canada,” as it is fondly called; it is not a land flowing with milk and honey, in which one has only to scratch the soil to secure a laughing harvest, or which “yields several crops in one year.” Still less is Manitoba a land of desolation, the home of the blizzard, where winter reigns for eight months of

the year, and the fair promise of harvest is perennially blighted by summer frosts.

These are the fictions of unscrupulous men, who would either entice the unwary to enter upon fields of enterprise for which they are totally unqualified, or, by even less scrupulous rainbow-hued statements, persuade the British emigrant to prefer the sun-scorched and cyclone-swept Northern States of America to the magnificent climate and undeveloped riches of our Dominion of the West. The decree of Nature, which offers the great majority of the human race the alternative of industrious labour or starvation, is not suspended in Manitoba.

My purpose in the following pages is, by a plain, straightforward account of the province in which I have spent many happy months, to enable those who have not the leisure for travel—and especially the agricultural class, whether farmers or farm labourers—to form an intelligent opinion of Manitoba as a field for emigration; to show them that, in the words of Lord Aberdeen, “in these lands, given a fair amount of work, coupled with a certain amount of intelligence, and the results of application with it, the scope for that application is greater than in over-populated countries.”

From its geographical position and its peculiar characteristics, Manitoba, in the memorable words of Lord Dufferin, “may be regarded as the key-

stone of that mighty arch of sister provinces which spans the entire country from the Atlantic to the Pacific. It was here that Canada, emerging from her woods and forests, first gazed upon her rolling prairies and unexplored North-West, and learned, as by an unexpected revelation, that her historical territories of the Canadas, were but the vestibule and the antechamber of that, till then undreamt-of Dominion, whose illimitable dimensions should confound the arithmetic of the surveyor and the verification of the explorer." Probably the majority of educated Englishmen have never realised the fact that the greater part of the continent of North America is included within the British possessions. The marvellous resources and the exalted destinies of the Dominion are as little recognised as its vast extent. Figures commonly produce a very vague impression upon the mind ; but the following words of Mr. Johnson, the accomplished head of the Statistical Department at Ottawa, are very suggestive : " England, Wales, and Scotland together form an area of 88,000 square miles. You could cut forty such areas out of Canada. New South Wales contains 309,175 square miles, and is larger by 162 square miles than France, Continental Italy, and Sicily. Canada would make eleven countries the size of New South Wales. There are (in extent) three British Indias in Canada, and still

enough left over to "make a Queensland and a Victoria. The German Empire could be carved out of Canada and fifteen more countries of the same size." Mr. Johnson might have added that the area of Canada is very nearly one half that of the entire British Empire, and that it is 488,766 square miles larger than the United States without Alaska. .

Philologists tell us of *biographies in words*. The names of Canada and Manitoba are notable illustrations. The Spaniards claim to have been the first discoverers of Canada. They searched, as Spaniards did all the world over, for the precious metals; and their search being unrewarded they abandoned the country, calling it *Il Capo di Nada*—a Cape of Nothing; so at least runs the legend. According to another tradition, the Castilians had entered the Bay of Chaleur before Cartier, and finding no trace of mines they pronounced the two words *Aca nada*—"nothing here." These words, it is said, were repeated to Cartier, who understood and adopted them as the name of the country. A more natural derivation, however, is furnished in the Iroquois word *Kannatha*, which is pronounced Kannada, and signifies a village or collection of wigwams.

The derivation of the word Manitoba has been much debated; but the patient investigation of Professor Max Müller has now settled the vexed

question. Manito, which has been translated in so many ways, means simply Beyond—a vague expression of the Infinite. The missionaries seized upon the words *Kitchi-Manito* as the equivalent of Supreme Spirit, and, when the Indians themselves were unable to explain its meaning, they very naturally applied it to the Supreme Being. Yet there is no doubt that they were mistaken. In Algonquin and Iroquois the word for Manito is Oki, having the same meaning—Beyond—the supernatural in its most general form. And further, the true form of *Kitchi* is *Gitse*. From the same root we get *Gitsis*—the Sun. Hence *Gitse-Manito* means the Spirit of the Sun. To any one familiar with the sun dance of the Iroquois and other tribes of Indians, it will be apparent that we have here preserved, fossilised as it were, in the name of Manitoba a record of the fact that the aborigines of that country were, if not sun-worshippers, at least, as we see them to-day, accustomed in their frenzied dances to do honour to the god of day.

A very few sentences will suffice to sketch in outline the history of Manitoba, and of the hardy pioneers who opened up the country which forms part of the vast domain granted in 1670 by Charles II. to the Hudson Bay Company. It was early in the present century, about the year 1805, that Lord Selkirk, a director of the Hudson Bay Company,

penetrated as far as the Red River. He was a kind-hearted Scotsman, a philanthropist—something of a visionary, it was said; but that was by Englishmen, who cannot vie with the Scot in a happy combination of philanthropy and shrewdness. It happened at the time of Lord Selkirk's visit to the beautiful and fertile valley of the Red River, that another Scottish noble, who was neither a visionary nor a philanthropist, was engaged in clearing his estate of objectionable human beings, who occasioned him some trouble and no sport, and stocking it with a race to whom he looked for much sport and no trouble. Surely a sublime conception—from his point of view. The noble "visionary" saw his opportunity, and with true Scottish resolution determined, in spite of obstacles which he clearly foresaw, to carry it into execution. Whilst it was a work of real philanthropy to transfer these miserable crofters to the fair fields of the Red River, it was also one which if successfully carried out must enormously benefit the Hudson Bay Company.

Years passed in anxious negotiations with the Company, in which, owing to their *laissez faire* policy, the North-West Fur Company had acquired a paramount influence. The enterprise of this company was as remarkable as the supineness of their rivals. It was their policy to hold for them-

selves the rich trade in furs, upon which immense fortunes had been built up. Hence they not only opposed Lord Selkirk's scheme, but caused reports to be circulated that the country was unfit for human habitation. Their enterprising agents explored and erected forts in remote parts for the extension of their trade; while their chartered opponents confined themselves to their ancient territory. The Red River was the great depôt of the North-West Company for making pemmican, the principal article of food used by their half-breed canoe men; and they foresaw that if the colony succeeded it would speedily exterminate the buffalo from which pemmican was derived. To frustrate their opposition Lord Selkirk purchased shares in the Hudson Bay Company, by means of which he transferred to himself a virtually controlling power, and in 1811 he secured by purchase an extensive territory on the banks of the Red River. Upon these lands, covering an area of 116,000 square miles, he designed to plant his proposed colony. In the autumn of that year he arrived with a party of Highland peasants at York Factory, on Hudson's Bay. In the following summer they proceeded to Fort Douglas, at the junction of the Red River with the Assiniboine, and now the site of the city of Winnipeg. This little colony of hardy adventurers formed the neu-

cleus of the Province of Manitoba. Accustomed as they were to the rigours of a Highland winter, and quickened by reports of perils which proved unfounded or exaggerated, the resolute band lost no time in the erection of log-houses. But peril came from an unsuspected quarter. Their title to the land was disputed by the North-West Fur Company, whose agents, with the help of the French half-breeds in their employ, were strong enough to evict the Highlanders by rude force from the positions in which they had entrenched themselves. The Indians were silent spectators. The settlers were compelled to retreat to Pembina, seventy miles south, and there to spend the winter in tents. Again and again, with indomitable courage, they returned and attempted to regain possession of their settlement. For three weary years the struggle was continued; but negotiation, threats, force, were alike futile.

The North-West Company contended, apparently with justice, that the claims of Lord Selkirk were illegal, as they had taken possession of the Red River half a century before the Hudson Bay Company had ventured into it. However that might be, they continued a determined struggle for supremacy; much blood was shed; Indians were bribed to harass the settlers; and it is said that when they refused, desiring to preserve their

neutrality, agents of the North-West Company disguised themselves as Indians for the purpose of perpetrating outrages. The houses of the settlers were burned, their crops destroyed, their stores broken open and pillaged. Little wonder that despondency furrowed deep lines in the brows and paralysed the resolution of these brave men. Dissension followed, fomented by the cupidity of the agents of the North-West Company, who, after seizing Fort Douglas and brutally murdering the governor and twenty men, persuaded some to desertion, and to the purchase of lands their only title to which was that of force. Weakened in numbers, demoralised by division, exasperation, faction, in June, 1815, the remnant of the now incohesive band resolved to return to Scotland. Under the guidance of friendly Indians they started for Lake Winnipeg, meditating a vigorous protest against the neglect of the Hudson Bay Company, which had left them to contend single-handed with that corporation's unscrupulous competitors. Their grievance was admitted; and with an assurance of the company's special protection, and of the presence of Lord Selkirk himself with a fresh band of emigrants in the following spring, they were induced to return. Nor were they deceived. Lord Selkirk had been occupying himself at

home in opposing the growing demand for reform which, had it been conceded, would have rendered it exceedingly difficult for him to have persuaded either English or Scotch men to have emigrated. On the very eve of his return, in 1816, he writes that he "trembles at the idea of constitutional changes," which are "not the way to any practical public benefit." In the autumn of that year, however, he arrived at Quebec, with the promised contingent of crofters, brought together by his glowing description of country and climate; the promise of political rights, liberty of conscience, freedom from taxes, and, above all, from tithes. The sanguine hopes and the old courage of the colonists revived. Their faith in their noble patron had never faltered, and it was more than justified. He seized Fort William, and having wintered there advanced to the Red River in the spring of 1817. The inspiration of his presence filled the most dejected with confidence; faction was shamed into silence; and the most aggressive of the agents of the North-West Company looked on with sullen submission, as the heroic band rebuilt their houses and tilled their fields. But the future safety of the colony demanded that an example should be made of these ruffians. Their ringleaders were arrested, and sent to Montreal for trial.

The troubles of the colonists were not yet over. Probably their crops were put in late ; in any case they failed ; but the buffaloes which then roamed over the open prairie in hundreds of thousands, supplied them with abundance of food for the winter. The jealousy of the North-West Company, who claimed an exclusive right to trade in furs, crippled them in many ways ; but in the spring of 1818 a favourable season again inspired them with that hope which is supposed to spring eternal in the human breast. Alas that it so often heralds despair ! That year, so far as is known for the first time, the Red River district was visited with a plague of grasshoppers. The same thing occurred in 1819 ; in the following winter the long-tried settlers, seeing ruin staring them in the face, were compelled to send a party on foot a thousand miles for seed-grain.

The story has been often told ; it will therefore suffice thus briefly to outline the vicissitudes of the hardy pioneers, who, at the beginning of this century, opened up for settlement the district now known as the Province of Manitoba. We cannot further follow their chequered career. The amalgamation of the North-West Fur and the Hudson Bay Companies ensured them peace and safety, and their affairs were further reduced to order by a treaty between the united

companies and the Indians. In 1835 the Red River Settlement was organised under the name of the District of Assiniboia. The first government was constituted at Fort Garry, and the territory placed under the rule of a council appointed by the Hudson Bay Company. The way for emigration was thus opened; but the Government was unable to cope with the prevailing lawlessness, until, rising to the occasion, they purchased for the sum of £300,000 the territory, with the extensive trading and administrative privileges, of the united companies. Having thus secured an undivided sovereignty over the North-West Territories, the Canadian Government proceeded to develop the country. This movement, which commenced just thirty years ago, has been followed up with such energy that over 80,000,000 acres of land have now been completely surveyed.

On the suppression of the rebellion of 1869, Manitoba became a province, and its first parliament met at Winnipeg in 1871. At this time the population, including the territory afterwards awarded to Ontario, was under 12,000, of whom 10,400 were half-breeds and Indians. In form the province presents the appearance of a nearly perfect parallelogram, measuring about 300 miles from east to west, and 120 from north to south.



BIRD'S EYE VIEW OF WINNIPEG

Its western boundary is $101^{\circ} 20'$ west longitude; the eastern boundary, though not clearly defined, is about $95^{\circ} 10'$. On the south, the International boundary line, the 49th degree of north latitude, separates it from the States of Dakota and Minnesota, and its northern boundary is the 53rd degree of north latitude. Within these limits is comprised an area of 116,000 square miles, or 74,000,000 acres including the water area, which forms one-seventh of the whole. The greater part is included in the First Prairie Steppe of which we shall presently have to speak; and its general character is that of a level plain, sloping gently to the north, and becoming swampy in the neighbourhood of the lakes. Originally covering an area of 123,200 square miles, this—as we learn from the Statistical Year-book of Canada—has been reduced since the Census of 1881 by a rearrangement of boundaries, 7,000 square miles having been added to Ontario and the district of Keewatin. On *this reduced area* the population increased from 62,200 in 1881 to 154,400 in 1891 or more than 148 per cent. The progress of the province has been unsurpassed by that of any other new country. In 1881 there were only 65 miles of railway in operation; there are now more than 1,400 miles. In 1881 not a bushel of grain had been exported; in 1891 the exports, so far as

can be ascertained, amounted to 14,000,000 bushels of wheat, whilst that of barley which had reached 3,000,000 bushels in 1888, was arrested by the operation of the McKinley Tariff Act. These figures are only approximate, the statistics of the Dominion Government crediting the export of wheat from the port of shipment. Hence Manitoban wheat going through Boston and New York is not even credited to Canada, nor that shipped at Montreal to Manitoba. The actual yield of crops has, however, been ascertained with a near approximation to accuracy by the Department of Agriculture; and whereas in 1881 Manitoba imported both cereals and potatoes from the United States, the ascertained yield for the province in 1891 was: Wheat, 23,191,599 bushels; barley, 3,197,876 bushels; oats, 14,762,805 bushels; potatoes, 2,286,900 bushels.

The progress indicated is very remarkable for a country, which, only twelve years ago, was so little known that a letter addressed "Winnipeg, Manitoba," went to France, and, after much travelling to and fro, was endorsed "Try Calcutta. It went to India, and back again to Paris, where some official with a smattering of geographical knowledge added *Nouvelle Amerique* to the address, and so it reached its destination *via* New York.

From its position, Manitoba is obviously well adapted to become a centre for the distribution of the agricultural products of the entire North-West; and the marvellous growth of its town populations shows that such has been its history. At the time of its incorporation, in 1874, no more central position could have been selected for the distribution of supplies than Winnipeg, at the junction of the Assiniboine with the Red River; the former navigable for 300 miles to vessels of medium draught, whilst away to the south, far into the United States, the latter provided a great international water-way for the exchange of the products of two countries. A century ago this spot was the point of landing of the Indians and the traders of the North-West Fur Company, who there manufactured pemmican, and assorted and repacked their skins. Its commanding position ensured the selection of Winnipeg—or Fort Garry as it was then called—as the capital of the new province. It is perhaps unfortunate that the claims of Brandon to that honour were overlooked. Whilst Brandon is in the heart and centre of the extensive and fertile grain-producing plains of Manitoba, Winnipeg is on the eastern margin of the great prairie country, which extends westward for 1,500 miles. But the days of railways were not yet; and Winnipeg, which with its two

navigable rivers was described as "the neck of a double funnel whose mouths gather the traffic of an empire and three oceans—the Atlantic, the Pacific, and the great lakes"—was selected. Regarded as the capital of the Canadian West rather than as that of a province, its unrivalled position constituted it the natural emporium of trade—not in agricultural products only, but in timber, minerals, salt, fish, and all the varied natural productions of that vast area—and the choice of Winnipeg was not only inevitable, but has been justified by its history.

Perhaps no better illustration of the progress of the Dominion of Canada could be given than the story of the rise of the city of Winnipeg. In 1870 it was a mere hamlet, a collection of log-houses and tepees, with a population of 215 souls, and was described by Captain Butler as "a miserable-looking village." It is now London in miniature, a place where—as, in common with many others, I myself experienced—one meets people from the common fatherland who seem to regard it almost as a matter of course that, after years of separation, friends should again grasp hands in the queenly city of the West. At the time of its incorporation as a city in 1874, the population was a little under 3,000, and remained nearly stationary until 1878, European emigration having been diverted to the

United States by exaggerated reports of the fertility of the country, which experience has not confirmed. The reputed new El Dorado in Dakota and Minnesota especially caused an exodus from Canada, whilst the high price of provisions in Winnipeg, owing to dependence on the United States, whence supplies were brought *via* the Red River, arrested its progress until, in 1879, the railway from Winnipeg to Emerson, connecting with the railway system of the States, was opened for traffic. The Canadian Pacific Railway was also projected, and in part surveyed. A great influx of settlers and of capital followed. Town lots were eagerly purchased, and rapidly rose in value. The great land-boom had commenced; and within a year the population of the city had doubled. In 1881, the projectors of the Canadian Pacific Railway, which was to connect Winnipeg with the two oceans, commenced active operations; and the population which at the commencement of that year was 8,000, was estimated at 14,600 before its close, and reached 22,500 in 1883. The pace was too rapid; and the land-boom was a more than doubtful benefit to Winnipeg. In 1885 the population fell from 24,000 to 22,000, and in 1886 to 20,000. But with the rapid extension of railways which, it has been said, now "strike

out from the city like branches from the parent stem of a tree," its progress has since been steady and continuous, the population now numbering 25,642, or an increase of over 300 per cent. within a period of eleven years. The city covers an area exceeding three miles, and is laid out on a grand scale. There are 190 streets; the leading thoroughfares have an imposing appearance, Main Street being 132 feet in width. Many of the shops and warehouses are palaces, whilst the public buildings will bear comparison with any in what Canadians delight to call "the old country." The increase in the wealth of Winnipeg is strikingly shown in the assessment, which in 1874 amounted in value to \$2,676,000, and in 1891 to \$18,608,000, to which must be added \$3,500,000 for public buildings exempted from assessment, making a total value of \$22,108,000. This is about the value which property in Winnipeg acquired during the boom period of 1882 and 1883; but in every part of the city values are now rapidly rising, and little impetus will be required to carry up the price of land to its former extravagant level. An illustration of this was furnished in October, 1890, when a mere rumour that a new railway dépôt was to be erected at the west end, brought out a wealthy syndicate who purchased property in one afternoon aggregating over \$300,000; an English gentleman

buying a block in the rear of the Imperial Bank at \$125 a foot.

Much has been said about the unhealthiness of Winnipeg; and there is no doubt that diphtheria and typhoid fever are sadly too prevalent. But in the month of August, 1891, when zymotic diseases were most fatal, the deaths from all causes were 167. This is not an excessive death rate, and it compares favourably with other Canadian and American cities. In Montreal, out of the total deaths for the month of 793, there were 579 of children under five years of age. In 1888 the death rate per 1,000 of the population was in Winnipeg 20·87, whilst in Quebec it was 28·37, and in Montreal 31·60. Infant mortality is lamentably high, though not above the average, the ratio per 1,000 deaths being 583·96 against Montreal, 631·01, whilst the ratio over sixty years of age is the smallest of any town in the Dominion, being 51·52, against Montreal 109·65, Toronto 156·92, Quebec 189·48; other towns running up to 349·39. In round numbers, Montreal (population 202,000) may be said in 1890 to have had ten times, and Quebec (65,000) three times the population of Winnipeg. The following table exhibits the respective mortality from the causes indicated :—

	Deaths from—					Disease of Heart.	Throat Affections.
	Atrophy and Debility.	Diarrhoea.	Phthisis.	Diphtheria.			
Montreal	1268	758	544	392	269	239	
Quebec	239	215	196	34	65	17	
Winnipeg	31	87	32	54	18	13	

In Winnipeg, as elsewhere, children suffered most from diphtheria, over 94 per cent. of the whole number of deaths from this disease being of children under eleven years of age. It is gratifying to learn from the Statistical Report just issued that the death rate in all towns making returns shows a very remarkable diminution, which obviously points to greater attention to sanitary arrangements. Diphtheria is now at the bottom of the list of "the most fatal diseases," the total number of deaths from this cause being 466, or nearly 50 per cent. less than in 1890; whilst the ratio of deaths to the population was .5 per 1,000, compared with 1.1 in 1890.

Brandon—"the wheat city of the Dominion"—affords another illustration of remarkable development, which is certain to be accelerated in the near future. Situated in the centre of the richest agricultural country in Canada, on the banks of the beautiful Assiniboine river, it is in the very heart of the continent, equi-distant from Montreal and Vancouver, with both of which it is connected by the Canadian Pacific Railway. The Great North Central Railway opens up to it the rich district of

Saskatchewan to the north, and connections with the Northern Pacific Railway link it with the great system of American railways to the south, whilst the recently opened line to the Souris district is destined to make it the *entrepôt* of the traffic from the most extensive coal fields in South Canada.

Twelve years ago few people, even in Canada, knew the locality of Brandon, with its population of 100 to 150 souls. The population is now 3,778, and in its market in the autumn of last year 1,400,000 bushels of wheat, 600,000 of oats, and other kinds of produce were gathered for export. From its salubrious situation, 50 feet above the level of the river, it will have the best system of drainage of any town in the Dominion, whilst its supply of excellent water is unsurpassed. The City Council have sanctioned a magnificent system of sewerage and water-works, and are erecting an imposing market-hall and hospital. The Government, the banks, and the leading merchants emulate one another in the splendour of the buildings now erecting. The leading thoroughfare, Rosser Avenue, running east and west, and over 30 yards wide, well paved, and lighted with electricity, presents a fine appearance; and already some of the transverse streets are running it hard. "The way in which Brandon is

growing this summer," says a local paper, "is above and far beyond the casual conception of the inattentive passer-by. On every street can be heard the sound of the stone-hammer and chisel, the clinking of the trowel, and the busy tooth-work of the carpenter's saw. Dr. Fleming's block on Rosser Avenue would do credit to any city in the Dominion of Canada, or out of it." The value of land in the city has risen enormously, and as the Souris Railway now supplies it with cheap coal, manufacturers will not fail to recognise the eligibility of the town and district for enterprises which will enable Brandon to take her position as the centre of the manufacturing industry for the Canadian North-West.

As an agricultural centre the future of Brandon is equally assured. It is said that in 1881 there was only one settler on the north bank of the Assiniboine. The country is now everywhere dotted with homesteads, and in one case at least, near to the city, a single farm comprises 10,000 acres. The great prairie district, of which Brandon is the centre, is the best watered and the best wooded in Manitoba, and includes 20,000,000 acres of the richest wheat-raising land in Canada, or in the world. Already six large grain elevators compete for produce, of which more was sold last year in Brandon than in any other town in Canada.

Improved farms in the neighbourhood are to-day worth five times the price at which they were purchased five years ago. Good unimproved land may still be bought within three miles of the city at from six to ten dollars an acre, but they are being rapidly absorbed, and all homestead land is taken up.

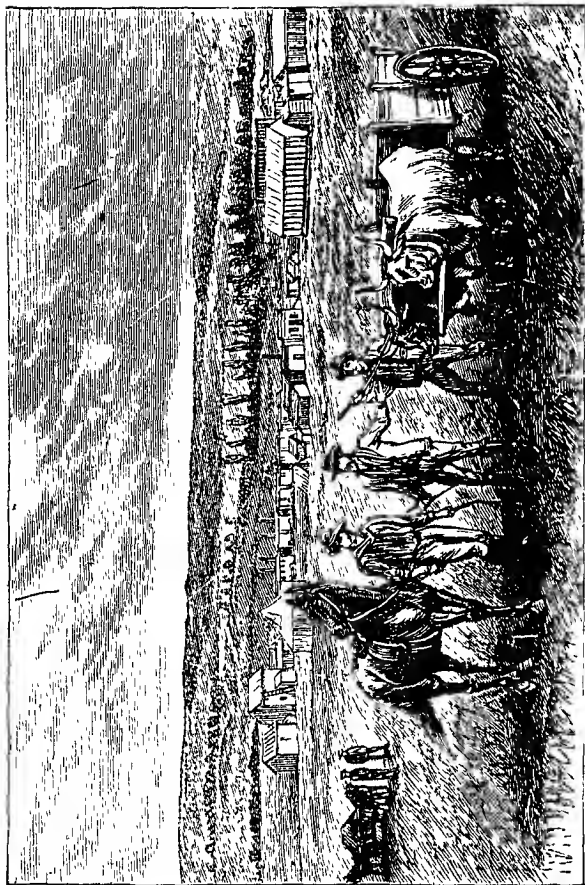
In illustration of the substantial results achieved in this district by practical men, almost without capital, I quote from a letter addressed some months since by a gentleman residing at Virden, Man., to the *London Advertiser*.

"Whilst driving out from Brandon," he writes, "with one of the oldest residents of the town he related to me the history of the settlement of various families along the road and in the surrounding country, a few of which I will relate to show what has been done in this land of droughts and frosts, of hailstorms and rainstorms. About seven miles south-west of Brandon lives Mr. B——, who took up his homestead just seven years ago with only a cow to start on. He did some breaking the first summer, with oxen, I suppose, but where or how he got them my informant did not say, and on this breaking and the prospective crop he borrowed money to buy his seed grain (the Manitoba statutes make special provision for allowing this to be done), and so he contrived

little by little from year to year, until to-day he owns 320 acres, worth at least \$3,200, subject to a \$400 mortgage. He has a very fair house and stable, two good spans of horses, large number of cattle, two binders and all other necessary farm machinery paid for, and this year he has between 100 and 200 acres of wheat. This is, of course, no boom prosperity, but it is a fair return for hard work. . . .

"This is one side of the picture. On the other hand, there is possibly no province in the Dominion where so many men have made a failure at farming, and not through any fault of the country, for there certainly is not a province in the Dominion where so many men, attracted possibly by the glowing accounts in immigration literature of the earlier boom days, who knew not the first A B C about farming, started out to make a fortune along this line, and as soon as the people realise that farming is not child's play, or fool's work, but a science requiring skill and judgment, so soon will the failures cease."

"I shall have frequent occasion to refer to the Government Experimental Farm at Brandon, of which it will be sufficient here to say that, like the similar institutions at Ottawa, Indian Head, and elsewhere, the object of its establishment is to conduct experiments and researches bearing upon the



PRAIRIE FARM NEAR BRANTON

industries of the province, with a view to the development of scientific agriculture.

~~The progress of Portage la Prairie, within a~~
decade, has been only less phenomenal than that of Brandon. But, notwithstanding its great natural advantages, proximity to Winnipeg will prevent its becoming the rival of Brandon as a centre of distribution. The smaller towns—Carberry, Virden, Elkhorn—on the Canadian Pacific Railway; Emerson and Deloraine, near to the International boundary; Minnedosa and Birtle in the north; and many others present points of interest which would repay examination. But this is beyond the scope of a work designed to interest agriculturists and emigrants to the prairie rather than to the towns.

The Census returns for the Dominion of Canada which have recently been made public have proved to many a source of surprise and disappointment. But a little examination will greatly modify even the disappointment which is due to exaggerated estimates of the growth of population formed by irresponsible individuals, and promulgated in a spirit of rivalry by the newspapers of certain towns; whilst as regards the province of Manitoba the returns will be found to be highly gratifying.

The following are the salient features of the parliamentary Census return laid before the Federal Parliament. The total population of the Dominion

has increased from 4,324,810 in 1881, to 4,823,344 in 1894. The net increase is thus 498,534, or 11.52 per cent. Within the same decade Canada is said to have received 880,000 immigrants, and as the natural increase of her population by the excess of births over deaths has been assumed to be greater than in this country, the superficial observer is startled to find that the percentage of increase is about the same. Where, it is asked, are the 880,000 immigrants? The solution offered by the *Times* newspaper—"the mere force of gravitation—the greater attraction of a bigger and already more prosperous country close at hand"—is as inconclusive and misleading as might be expected from that oracle. The United States are neither "bigger" nor relatively "more prosperous" than Canada. That the policy of Protection has driven many Canadians and immigrants to the United States is a fact which will be dealt with hereafter; but it is only one of several forces which have been in operation throughout the decade to arrest the natural increase of the population. Probably the most important of these is the fact that an overwhelming majority of the immigrants have been young bachelors. Next is the remarkable displacement of the population, both from an influx into the towns, and, in a much larger degree, from a continuous current of migration from the older

maritime provinces to the North-Western plains. Thus, whilst in New Brunswick the increase in population has been only 0·02 per cent., almost reaching the vanishing point, in Manitoba the enormous increase of 148·06 per cent. has been attained. Nova Scotia has increased its population by 2·25 per cent, whilst Assiniboia, Alberta, and Saskatchewan have run up to 140·98.

If we compare the town population of the eastern and western provinces, the contrast is equally striking. Montreal has increased its population 39·5 per cent.; Winnipeg 221·1. Quebec shows an increase of 1·0 per cent., whilst Calgary, from nothing, has a population of 3,876; and Brandon, from less than 100 has grown to 3,778. In the Districts we find yet more marked indication of the displacement as well as the growth of the population. Of the fifteen provinces of New Brunswick, eight show a decrease in population; in Ontario twenty-nine districts show similar results; whilst the five districts into which Manitoba is divided all show large increases, that of Selkirk reaching 304·0 per cent.

It may be objected that such details of the displacement and growth of population fail to account for the 880,000 immigrants. Of the exodus to the United States which occurred a few years since, I shall have more to say presently; it will be suffi-

cient here to show that the emigration statistics are fallacious. Thousands of Europeans, who have gone to the United States *via Canada*, have been tabulated as Canadian immigrants. Again, thousands of young men emigrating from this country return every second or third year to visit their friends, and are thus tabulated as immigrants three or four times over in the course of a decade. The facilities for travel are, indeed, now so great and the charges so low, as to induce many to come home annually for the Christmas week. Every one of these will figure as *ten emigrants* in the decade. To the same cause may be assigned the annually increasing number who, both from Great Britain and the Continent, visit their friends, without any purpose of settling in Canada—all of whom are tabulated as immigrants.

These are valid pleas in extenuation of the "shocking returns" which have excited the sentimental lugubriosity of the *Times*. Meanwhile Manitoba holds the proud position of a province which within a decade has increased her population by nearly 150 per cent., whilst in the largest district of that province a rate of progress probably unequalled in the world is recorded—being no less than 304 per cent.!

A few words must be said about the climate. After all that has been written upon this subject,

there is probably more misconception respecting the climate of Manitoba to-day, than about that of any other part of the world. When Louis XV. sought to conceal his chagrin in signing the Treaty of Paris, by which Canada was surrendered to England, with the remark, "After all, it is only a few square miles of snow," no one was deceived; least of all King George, who said, "England never signed such a peace before, nor, I believe, any other power in Europe"; and subsequent history has shown that he was right.

The opinion of the average Englishman appears to be very much that which, with a view to prevent settlement which must prove prejudicial to their rich trade in furs, the North-West Fur Company in their palmy days persistently affirmed—that Manitoba was a hyperborean land, with long, and almost perpetual winter of Arctic severity. There is no doubt—rather there is abundant evidence—that this conception of the country has been industriously fostered by unscrupulous agents of American railway companies, with the object of diverting European emigration to Dakota and Minnesota, which have been represented as possessing a better climate. "If Minnesota suffers from a rigorous winter," writes one of these sapient gentlemen, "common-sense now asks what hope can there be for Manitoba . . . in which our countrymen are

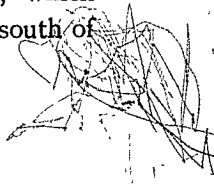
urged to make new homes?" With splendid effrontery, and contempt for the intelligence of those whom they would make their dupes, these scribes have asserted, "with the proper quantum of hypocritical lamentation," that Manitoba enjoys "seven months' Arctic winter, and five months' cold weather." Others, with equal ignorance or design, have affirmed that the tropical heat of summer is as subversive of comfort, and as injurious to health, as the Arctic cold of winter; whilst both are alike fatal to agricultural pursuits.

Climate, it should be remembered, is not simply a matter of latitude or longitude. It is determined by many and varied conditions; elevation above the sea level being no less causative than latitude; the position and elevation of neighbouring land no less than the temperature and direction of ocean currents. Situated in the very centre of the continent, equi-distant from the Atlantic and the Pacific, from the Arctic Ocean and the Gulf of Mexico, the ocean currents have no appreciable effect upon the climate of Manitoba. On the other hand, Hudson's Bay, which never freezes, to the north, and the great lake system to the south-east with a temperature 3° higher than Hudson's Bay—containing nearly half the fresh water on the surface of the globe and; with the smaller lakes contiguous to them, covering an area of 130,000 square miles—

have a moderating influence. Winnipeg is 764 feet above the sea level, this being considerably above the average elevation of the province. If we take four centres, two having the highest, and two the lowest elevation, the effect of elevation upon climate will be apparent.

	Latitude.	Elevation above sea. Feet.	Mean Temperature. Summer. Year.	
Minnedosa	50° 14'	1710	56·4	29·5
Oak Lake	49° 45'	1386	57·0	30·8
Winnipeg	49° 55'	764	60·8	32·9
Gimli	50° 37'	723	58·9	31·8

It will be observed that whilst Minnedosa and Gimli, and Oak Lake and Winnipeg, are respectively in almost exactly the same parallel of latitude, the towns having the lower elevation have the higher temperature, irrespective of latitude. Calgary, which is the point of greatest elevation (3,389 feet) in the North-West Territories, has a mean summer temperature of only 53·4, whilst that of Quebec, at an elevation of 312 feet, is 62·3, and of Winnipeg (764 feet) is 60·8. The border states of Dakota and Minnesota, having a slope to the north and to the south, have a greater elevation and a colder climate. Mr. Macoun writes: "After nine years' study of all available material, and constant observation, I can state that our peculiar climate is caused by 'the great American desert,' which commences at the 100th meridian, exactly south of



our prairies and extending with little interruption to the boundary of California. The winds passing over it descend on our interior plain, giving out heat and moisture in the summer, and in the winter wrapping the whole country in a mantle of dry air which moderates the climate so much that without the aid of a thermometer no one could believe the cold was so intense."

That the climate of Manitoba is warm in summer and cold in winter is a well-known fact. But the extremes of temperature are less than is generally supposed ; and a mere reading of the thermometer, without regard to other conditions, is misleading. At Winnipeg in 1889, the mean summer temperature was 60·3, the winter 10·0; whilst the extremes were respectively 103·0, and —44·6, and the mean for the year 33·58. For the province of Manitoba the mean temperature for the year was 33·58, or the same as Winnipeg.

To the uninitiated these figures may easily convey a false impression. It is undoubtedly true that the range of temperature which they indicate is sometimes exceeded. It is, indeed, very rarely that the mercury falls to 44° below zero, and the statement that it sometimes freezes is a pure myth. But in the summer it frequently rises above 103°. More than once I have myself seen 134° in the sun registered. Neither extreme is, however, attended

with serious discomfort. Whilst the heat of summer is moderated by a breeze which I have never known to fail, the dryness of the atmosphere prevents that sense of lassitude which accompanies a much lower range of temperature in a more humid climate, such as our own. So also with the intense cold. In winter the sun shines almost invariably from its rising to its setting, the dryness of the air permits a lower range of temperature without frosts than in moist climates, and cold is less acutely felt than the readings of the thermometer would lead one to expect. In summer and winter alike, the dry, clear, sunny atmosphere produces the most exhilarating effects. The fall of snow seldom exceeds fifteen inches, and it is fortunate for the farmer when it is so much. Twelve inches of snow is only equivalent to one inch rainfall; the deeper the snow, therefore, the better the augury for a good seeding time and harvest. The fine, dry, powdery snow freezes as it falls, and forms an excellent track, free from ruts and other obstructions, for the conveyance of produce to its market. The winter sometimes sets in early, and the country may be "frozen up" before the middle of November. But instead of perpetual Arctic winter, of Yankee imagination, its rigour is generally broken by the beautiful "Indian summer," which often renders November the pleasantest month of the year. Up

to the very last day of that month I have found it delightful to sit out of doors, basking in the sunshine and divested of hat and coat. In 1890 this charming return of summer in the midst of winter lasted until Christmas, though interrupted by occasional short snaps of severe cold. On the 3rd of December the thermometer fell to 25° below zero, and again on the 24th to 18° . But when it is coldest the sky is cloudless, the atmosphere is at perfect rest, and from personal experience I can confirm the remark of an English resident, that "the intoxicating effect of each breath of dry, frozen air, creates an exhilaration almost indescribable."

The following is the record, at the chief meteorological station in Manitoba, for the week ending December 27, 1890 :—

Height of barometer above sea level—760 feet.

Highest temperature $38^{\circ} 5'$, December 22nd.

Lowest temperature $-18^{\circ} 4'$, December 24th.

Snow 3 inches.

The sunless skies and fog-laden atmosphere of New Year's Day (1891) in England, will be fresh in the recollection of many. In Manitoba and the Territories young men and boys were playing cricket in their shirt sleeves, and in brilliant sunshine! The secretary of the Medicine Hat Cricket

Club writes on New Year's night : "The game started at 12.30, finished 14 o'clock ; weather clear and fine ; played in shirt sleeves. . . . First match for season of 1891. The weather here continues fine. Thermometer average for November and December 34° above zero, higher than any other place in Canada."

The winter season so far from lasting seven months, hardly exceeds half that period. It is a popular error that in Manitoba there are practically only two seasons. The four seasons are usually well defined though, as in other countries, and for similar reasons, they are more or less irregular in their arrival and duration. As a rule spring commences late in March and ends in May, with a mean temperature of 39°. The summer months are June, July, and August, with a mean temperature of 65°. The autumn months, September and October, have an average mean temperature of 43°; and winter, with its wide range of temperature, extends from November to the middle of March, the mean temperature being about 12°. But, as Professor Bryce observes, the junction of the seasons is not always very noticeable. "Spring glides superbly into summer, summer into fine autumn weather which, during the equinox, breaks up in a series of heavy gales of wind, accompanied by rain and snow. These are followed by that divine after-

math, the Indian summer, which attains its true glory only in the North-West."

It is true that winter is sometimes made hideous with blizzards. There is a widespread belief that the blizzard, so destructive of life and property in the United States, has been domiciled in Canada, and especially in Manitoba. This is a popular delusion; and it is little to be wondered at that Canadians, who for many years have been sending us eggs, apples, poultry, dairy products, beef, and bread stuffs, resent the "insular ignorance" of Englishmen who, as they say, "wrap themselves in the impenetrable folds of their fog, and refuse to yield up their first impression, or to learn anything from the experience even of their eyes and stomachs." With pardonable sarcasm, the Manitoban papers during the past winter headed their columns of English intelligence with the heavily leaded line "News from the Cold Country." Manitoba is not the home of the blizzard, where it rarely occurs on more than three days throughout the winter. Even then it is not formidable, unless to the man who is overtaken by it on the trackless prairie, and far from the shelter of the "bluffs," which are generally within reach.

The Dominion Government are now offering great inducements to settlers to plant their homesteads; as they also propose eventually to plant

the extravagantly-wide road allowances which surround every square mile of land. When this is done, the blizzard—which a stage-driver once forcibly described as “one o’ them ’ere mountain storms as gets up on its hind legs and howls”—will be an unknown phenomenon in Manitoba.

It is true that August frosts sometimes make great havoc of the crops; and to this fact, with its concomitant exaggerations, is largely attributable the widespread belief that Manitoba is a land, if not of eternal sterility, at any rate of almost continuous frost. The compensations and advantages of the climate are usually overlooked. And frost itself is one of these. Penetrating to a great depth, it holds in suspense an element of moisture which the small rainfall of the country renders so necessary to its productiveness. The warm rays of the sun in April draw up this constant and assured supply of moisture for the nourishment of the germinating grain. “What would be thought,” asked Erastus Wiman, “of a device that should provide, underneath the whole surface of a vast and fertile wheat-producing area, a well-spring of moisture, that should continuously exude and feed the delicate tendrils of roots that the wheat plant sends down into the earth for sustenance? Yet this is precisely what nature has provided in the thousands of square miles of wheat

areas in the Canadian North-West. Ages of long winters, continuous, and often severe cold, have produced a frost-line in the earth far down below the surface, which, being thawed out during the summer months, is full of force. What seems, at first glance, a barrier to the productive powers of nature is, in this case, found to be contributing in the highest degree to man's advantage."

On the whole, then, it may be confidently said, as we shall presently see in greater detail, that the climate of Manitoba is superior to that of England; that its summers are as delightful as those of any part of Southern Europe; and that it is one of the healthiest countries of the globe. "There," said Malte Brun, "are to be found at once the hardihood of character which conquers difficulties, the climate which stimulates exertion, and the natural advantages which reward exercise. Nature has marked out this country for exalted destinies."

CHAPTER II.

THE question most frequently addressed by Englishmen to their fellow-countrymen who have resided in Manitoba or the Territories, is—What is the prairie like? Is it a dull, monotonous, treeless level, in which the settler is doomed to a life of painful isolation? It is easier to answer such questions with an emphatic negative than to convey to those who have not seen it in its many phases and diverse physical characteristics, any true conception of that great sea of green that rolls its grassy billows all the way from Winnipeg to the foot of the Rocky Mountains; from the International boundary to Hudson's Bay and the frozen North. I shall endeavour to answer them by a free and unconventional, and in some measure colloquial record of the impressions produced upon the minds of my fellow travellers and myself, both in our first experience of, and my own subsequent familiarity with phenomena, as interesting as they were novel.

The prairies of British North America present great varieties of climate, soil, vegetable product, and physical conformation. They admit, however, of classification into three distinct Prairie Steppes. The first of these—I quote from the Statistical Year-book of the Department of Agriculture—is known as the Red River Valley and Lake Winnipeg Plateau. The width at the boundary line is about fifty-two miles, and the average height 800 feet above the sea; at the boundary line the altitude is about 1,000 feet. This first plateau lies entirely within the province of Manitoba, and is estimated to contain about 7,000 square miles of the best wheat-growing land on the continent, or in the world. The second plateau, or steppe, has an average altitude of 1,600 feet, having a width of about 250 miles on the national boundary line, and an area of about 105,000 square miles. The rich, undulating, park-like country lies in this region. This section is especially favourable for settlement, and includes the Assiniboine and Qu'Appelle districts. The third plateau, or steppe, begins on the boundary line at the 104th meridian, where it has an elevation of about 2,000 feet, and extends west for 465 miles to the foot of the Rocky Mountains, where it has an altitude of about 4,200 feet, making an average height above the sea of about 3,000 feet. Generally speaking, the first

two steppes are those which are most favourable for agriculture, and the third for grazing.

Confining our attention chiefly to the 7,000 square miles of prairie, which form a fraction only of the province of Manitoba, we shall find its physical features, its fauna, and flora, as diversified as they are interesting. Proceeding west from Winnipeg, we cross a vast, untimbered, level, dried-up sea which, twenty years ago, may have seemed to justify the idea of the American map-maker, who represented Canadian fertility by a slight green flush along the northern boundary of the United States. At present the land near to the Canadian Pacific Railway is very largely held by syndicates. Here and there is a cultivated farm, indicative of industry and prosperity ; but generally the land lies low, and the thrifty emigrant will do well to pass it by. The lover of the picturesque in nature, as one of my fellow-passengers assiduously proclaimed himself, should leave it severely alone. Once a vast lake-basin, now the home of the badger, the coyote, and the fox, who prey upon gophers and other less-objectionable rodents, it is one bleak, treeless, dead level, whose endless space and silent solitude oppress the senses. "I told you so," is perhaps the mental comment of the cynical reader, who has been accustomed to think of the prairie as uniformly presenting such features,

and as, in fact, my fellow traveller exclaimed, "Wait a bit, my friend," I replied, "and if that must be our final judgment, at least let it be a rational one, based upon a knowledge of something beyond the bare fringe of the prairie. You were asleep when, at daybreak, we entered Manitoba at Rat Portage, which, in spite of its uncouth name, is a place to be passed with regret."

On the north shore of the Lake of the Woods more than half of its wondrously beautiful scenery is missed by the railway passenger. But the rays of the rising sun fell upon a scene of loveliness not easily to be forgotten. More resembling a beautiful river, winding between richly-wooded banks it seemed, than a lake, thickly studded with islands equal in number and in beauty to the famous gems of the St. Lawrence. Land and forest appeared to predominate over water which spread itself around indentures and promontories, the varied beauty of form, and colour, and outline of which are simply indescribable. The contrast between that glorious landscape, and the low flats of Eastern Manitoba along the track of the Canadian Pacific Railway, presented a physical antithesis so depressing that I found myself in danger of sharing my friend's lugubrious and constantly reiterated sentiments. Making an effort to recall vague, and as it proved mistaken impressions derived from books,



LAKE OF THE WOODS



I faintly protested that we had not yet reached Portage la Prairie, as the French miscalled the town or fort sixty miles west of Winnipeg, which is the true Gate of the Prairie. An elongated visage and a grave shake of the head suggested the unwisdom of prophesying unless one knows, and I, too, relapsed into silence. Proceeding west, along the north bank of the Assiniboine, whose deep bed renders it generally invisible, we still looked in vain for any other sign of the picturesque. There is less and ever less land under cultivation. The prospect is dreary. The land seems poor, and is certainly low, flat, and treeless. Again, vast level stretches of prairie land, wearisome to the eye, and unrelieved by wood or water. There is no mobility, no variety, in the wide landscape which lies stagnant and irresponsible to the soft embrace of the setting sun. I felt glad not to be a member of one of the many syndicates who are the reputed owners of this land, and who are likely enough to divide its possession with the gophers and the badgers for many a year to come.

About Portage la Prairie more land is under cultivation; it is, in fact, the centre of a good agricultural district, and a busy, thriving town. Miscalled, as I have said, the name, like many another, half mistily tells of a bygone dominion for which Cartier suffered and Montcalm died.

Joly, of which we may have something to say hereafter, is one of these, probably taking its name from a French settler—one wonders whether akin to that Joly of Dôle, publisher of Napoleon's first pamphlet, when the young Corsican sub-lieutenant walked twenty miles every morning to correct the proofs ; which done, he "partakes of an extremely frugal breakfast" with his printer.

Westward ho ! We are now getting into the very heart of the prairie. I anxiously scrutinise my friend's face. "I told you so" is expressed in every line, as he languidly casts an occasional glance at the window—and at me, but compassionately suppresses the chilling words. Another twenty miles are covered, and the growing sense of depression finds some relief as, here and there, a clump, or "bluff," of poplars—the trembling aspen of the prairies—comes into view. The land, too, is undulating ; and if that tree which seems to have strayed from its companions and got lost upon the prairie is not a spruce, I think I never saw one. There is just unevenness enough in the surface of the soil to deprive of its grotesqueness the description in the guide books of the "rolling" prairie. But, thanks to the syndicates, who hold for exorbitant prices, little of it is brought under cultivation. If all that is said of its fertility be true, purchasers of these vast tracks may perhaps

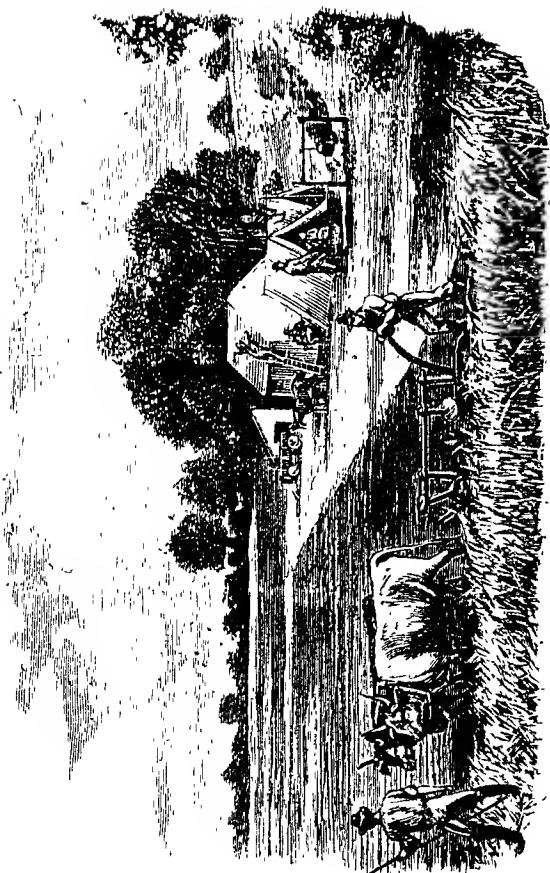
be found when the United States become *importers* of grain. Certainly nowhere else in the world is there such an extent of fertile land untenanted. The theory that this fertility is attributable to silts, deposited during ages when the present surface was under water, is probably correct. Meanwhile, my cynical friend, with an eye to the beautiful in nature, there is no law compelling you to seek a home in these wilds.

I am becoming cynical myself; or rather I was before I fell a happy victim to the soporific influences of the dead monotony without and my companion's pathetic melancholy within. That new plunge into desolation after the vision of a real, living spruce tree, and the pleasantly musical, though strange and seemingly suddenly arrested, and unfinished song of the ground lark, favoured drowsiness and threatened hypochondria. I did not dream of spruce, and larks, and busy homesteads, but of solitude and endless space, and of a low, cynical moan, "I told you so" coming up ever and anon over the dead level of the prairie. Resolutely pulling myself together, as the hollow whistle or bellow of the engine broke my brief slumber, I cast a troubled glance through the window, and at once became conscious of a change. We were approaching Sidney. Ploughed fields and a few cattle once again spoke of industry and

thrift—and the spruce! Nay, the whole family of spruce, from which the solitary fugitive tree had wandered, here dwelt at home. More cattle, and more ploughed fields, with here and there a bright, cheerful-looking homestead! A pleasant contrast to the absolute sterility, and the limitless, treeless flats in presence of which I had fallen asleep. We seemed to travel with accelerated speed and enhanced comfort, as we sped along over the now literally "rolling" prairie, well-wooded—not with the ubiquitous poplar only, but with maple, scrub-oak, and spruce, of finer growth and in larger quantity as we approached Carberry. The scenery improved as Brandon was reached, and the beautifully sinuous Assiniboine once more came into view.

Of Brandon sufficient has already been said. It is in the midst of a fertile district, and the famous Brandon Hills to the south are not yet wholly denuded of the timber which was once their glory. Romantic stories are told of the success of farmers in this district, and I believe that they are generally well-founded. That of Mr. J. W. Sandison beats the record. He informed the English delegate farmers in 1890 that when he came to Manitoba he was positively without twopence; whilst he now owns absolutely a farming plant for which he would refuse \$20,000.





BREAKING THE PLOW

He had 1,500 acres under wheat crop, and 300 of oats, the whole of which he threshed before the end of November, thus realising the best prices. He has also 800 acres of breaking and backsetting on land recently bought from the Canadian Pacific Railway.¹ But the story of his plan of farming, of his horses, cattle, farm buildings, and machinery, and of his marvellous success, would involve a digression for which we have not space.

Following the course of the Assiniboine, on its south bank, after a run of thirty-two miles through a fertile stretch of comparatively level prairie, we reach Oak Lake station, eight miles north of the lake from which the little town takes its name. Water is fairly plentiful, and timber more abundant. The lake is a sheet of water covering an area of several miles, and famous for the many species of its water-fowl. Much of the

¹ For the benefit of the uninitiated it may be explained that "breaking" is the process of turning the tough, thick prairie sod, which is left to rot and to the pulverising action of the frost. This work is generally done in the spring, after seeding, when the matted roots of the prairie grass are soft and succulent, and the soil also soft. The plough used for this purpose turns over a broad sod less than three inches thick, and therefore penetrated alike by sun and frost. The soil then appears as a light, friable mould, and is easily "backset" in the fall or in the following spring. Back-setting is a second ploughing, the furrows running the same way as in breaking, and a depth of about four inches.

surrounding land is low and marshy ; but it produces enormous crops of hay, and the great abundance of timber, with a very fertile soil, make it one of the most desirable districts for stock-farming in Manitoba. Between Oak Lake and Routledge the country becomes hilly ; wood is plentiful, and the prairie appears, after all, to possess features of natural beauty which are not to be despised. We will look at some of these when we have completed our present bird's-eye view of the province from its eastern to the last railway station on its western border. Ten miles will take us there. Approaching the neat little town of Virden we pass many homesteads, and some large farms with good out-buildings, and characterised by a general air of prosperity, judging by the number of cattle—though sheep are not anywhere visible. The town is situated in the midst of a wide fertile plain, on the Gopher Creek and within a mile of the junction of that stream with the Assiniboine. All homestead land has long since been taken up by settlers wise to perceive—

"Where streams abound
How laughs the land, with various plenty crowned."

We are here again upon the level prairie, but in one of the richest agricultural districts of Manitoba.

There is little wood, and little to please the eye. The town makes no pretension to display, but is neat and clean, and regularly built. The streets are well paved, with wooden side-walks slightly convex at the intersection of the streets to allow moisture to run off—a blessing to pedestrians in bad weather. The population is a little over 500.

Another six miles over the flat prairie brings us to Elkhorn, the furthest station west in the province. There is nothing imposing in the appearance of the little, irregularly built, but pleasant prairie town. The most conspicuous building is that in which the Indian Schools, of which we shall presently have to speak, are located. There are two places of worship—for the Episcopalians and the Methodists—a school, three general stores, and two grain elevators. The population is under 200, but the importance of the town as a centre for the distribution of agricultural products is increasing; whilst, as a farming district, the good supply of surface water yielded by the gravelly soil is in its favour.

Leaving Elkhorn in a southerly direction the pedestrian may, in a walk of twenty miles or less, make himself well acquainted with the western prairie in all its phases. His first impression will probably be the reverse of favourable. The prairie is flat; extensive prairie fires of annual occurrence

have consumed every vestige of wood, and left a blackened track over which the new grass grows slowly. Like the level bed of an ocean—as indeed it is—a treeless, illimitable, and uncultivated expanse lies before him. Yet a level sameness of rich prairie-land presents a not unpleasing monotony. Only to the tourist in search of the picturesque is it wholly uninteresting. But as our traveller pushes on, an occasional homestead comes into view. Presently a deep ravine, once—as perhaps it may be again—the course of a river, is passed. The prairie again becomes undulating; whilst a tender growth of young poplars around a “slough,” or swamp, indicates the arrest of prairie fires, and a promise that as the province becomes more settled this devastating agency will be effectually checked, and the face of the country transfigured.

It is transfigured already to our pedestrian; for he has left behind him that vast ocean bed where, long ages since, the waters went down or the land went up. Before him, far as he can see in that clear atmosphere, the land, broken up by numerous bluffs of poplars, and willows, which form a thick and somewhat intricate cover around every slough, assumes a park-like aspect. The west is ablaze with gold—

“ And the evening sun descending
Sets the clouds on fire with redness,
Burns the broad sky, like a prairie.”

As the sun approaches the horizon, clouds of green and saffron float in a sea of amber, and “colours never classed or catalogued” mingle in the clear blue vault of heaven. The night is hardly less beautiful. In the still, clear air the stars shine with scarcely diminished brightness down to the horizon itself, whilst—

“ Over it, the Star of Evening
Melts and trembles through the purple,
Hangs suspended in the twilight.”

All is stillness ; and as the shades of evening creep quickly on, and the colours blush good-night in the west, on the opposite horizon the full moon hangs in the pure ether like a balloon floating over the wide expanse of prairie. The long, low whistle of the mosquito hawk, answered, maybe, by the lonely call of an owl, alone breaks the silence. The gophers scamper to their holes, at the mouth of which they pause, stand upon their hind legs, and “put their thumb unto their nose,” if they do not also “spread their fingers out.” In the distance a fox may be seen creeping cautiously round a willow-circled bluff, where he may have a choice of gopher, blackbird, rabbit, and sometimes prairie-chicken for supper. Master Reynard will

choose the latter. As the darkness grows, a timid marten may show himself on the trail, to disappear in the twinkling of an eye; whilst the bolder badger hastens home after a well-spent evening burrowing for gophers and moles. Then all nature seems to sleep, save that the frogs, facetiously called "Canadian nightingales," keep up a lively pow-wow in the sloughs. A sense of solitude in that unrelieved loneliness may well seize upon the wanderer, but there is no place for sadness. The idea of endless space no longer depresses him. For even the prairie has lost its terrors—begotten of ignorance—and he is impatient to see it in all its varied aspects.

And first, he experiences its hospitality. He may sleep, without fear of any ill effects from exposure, in the neighbouring bluff; but he will do better to call at the nearest shanty, and, whatever the nationality of its owner, in accordance with prairie etiquette a cordial welcome, with bed and breakfast, will be offered him. Perhaps the night may be stormy. Three out of every four prairie thunder-storms occur at night, working up with little warning; and a violent thunderstorm on the prairie is a thing to be remembered. The thunder-peals echo one another—it is one continuous rattle, crash, and roar of thunder. In great zigzag lines of white, yellow, and red, the

lightning flashes every moment. So continuous is it, that the plain seems a vast sea of fire ; one might see to read by it with little interruption. The cause of this, as Professor Bryce observes, is not far to seek. "The large mass of heated air, full of vapour, is suddenly acted on by other masses, currents of different temperature, and the like, and the breadth of surface is so wide that the crash is correspondingly great. But so long as no damage is done—and the accidents by stroke of lightning do not seem more numerous than in other countries—the grandeur of the scene may be looked on without fear." The severest storms are seldom of long duration. When they occur in the day-time sun and cloud struggle for mastery, whilst rainbows chase each other across the wide arch of heaven, and are radiant with a splendour of light such as, in more humid atmosphere, never was on land or sea. When a severe storm is preceded by an evening and a sunset such as I have endeavoured to describe from frequent personal observation, the force of contrast is exhausted. I leave it to the imagination of the reader.

However violent the storm, it is most likely that our traveller will awake to the melody of birds, whose joy of life in the still atmosphere and glorious sunshine is communicated to himself. He is early abroad. The morning air is cool as he

steps out of the shanty, just in time to see the wide plain suddenly flush with vermilion-coloured light, as the rays of the rising sun, now rose-coloured, now orange, shoot upward, and are mirrored in millions of dewdrops sparkling upon every flower and blade of grass. Spell-bound for a few solemn moments, he watches in silence the changes of the calm and perfect dawn like that upon the Purgatorial Mountains, whilst—

“the white and the vermilion cheeks
Of beautiful Aurora; where he was,
By too great age were changing into orange.”

Unlike the purgatorial spirits, he knows no sadness “in the sweet air made gladsome by the sun,” although, “bewildered at the chariot of the light,” he presently becomes conscious that his desire to see the prairie under new aspects is being realised less to his satisfaction than in that wizardry of emotion from which he is rudely roused. The mysterious and the familiar, the real and the unreal, are so strangely mingled, that it is difficult to identify the shanty of his friendly host with that which he entered last night. Then, the horizon to the west was closed in with bluffs at a distance of less than a mile; that to the north by a ridge of high land. Every object to the south and east had been closely scanned, and of nothing was he more

certain than that no stream or river watered that park-like district. Now, no ridge closes the horizon to the north. Ten miles away he sees the little town of Elkhorn, basking in the morning sunshine, and twenty miles beyond it the Assiniboine river, running northwards towards Beulah. Turning to the south he sees the distant Pipestone Creek, running in a north-westerly direction where no streams had been yesterday; whilst on the west—ten miles beyond the bluffs which then limited his horizon as he saw them bathed in sunset light, blue, and violet, and opal—are houses, and an extensive forest which he is perfectly confident had no place in the landscape upon which, but eight hours before, he had gazed with delight. In this strange wizardry of light “with faculties confounded by excess,” he finds it hard to persuade himself that he is not in dreamland. The house, or shanty, is the same in which he had hesitatingly asked for shelter. The outbuildings bespeak *their* identity beyond all possible doubt. Bluff, and slough, garden, field, and rolling prairie are just as he had seen them yesternight. But now—has he been delirious?—the larger prospect, town and river, creek and forest, upon which he has been gazing astonished, for full half an hour, passes away like the image from the reflecting surface of a kaleidoscope! It is the mirage: one of the most

interesting of the many and varied natural phenomena of the prairie.

The enchanting spectacle of fertile, picturesque country encourages further exploration. The air in the still early morning is exhilarating. The prairie is bathed in sunshine and in many places carpeted with flowers. The flowers, indeed, have it not all to themselves. Badger-weed and the "wolf willow" are not particularly ornamental; but the beautiful silver-berry makes a good set-off. Now, its small yellow flowers perfume the air; and in a few weeks its silver berries—hardly more silvery than its beautiful leaves—will be as attractive to the eye as they are said to be to the prairie chickens which nestle at its root for food and shelter. Every bluff, or coppice, sends forth a flood of melody, for it is the chosen home of the canary, the Canadian lark, the finch, and numerous other songsters. The king-bird, famous for its boldness and familiarity, utters its chattering call as it follows the wayfarer in its peculiar fluttering flight; whilst the mosquito-hawk flies swiftly and silently by. The king-bird, rightly called the tyrant (*Tyrannus Carolinensis*), affords a striking illustration of that mutual aid among the feathered tribe of which naturalists tell us. Confident in their numbers, these swift and dexterous little birds will attack every animal or bird that approaches their haunts, and

to see them attacking birds of prey is one of the most amusing of spectacles. The pertinacity with which the king-birds pursue the mosquito-hawk, which is busy morning and evening in the discharge of its useful functions, renders them always conspicuous. They perfectly support one another, the eye of the hawk being apparently the object of their attack. Their courage seems to grow with their numbers, and when the hawk is compelled to retreat they make the air resound with their triumphant cries.

The sun's rays are warm, but a pleasant breeze moderates the heat and renders even quick walking agreeable. It is a joy to live. Every bluff is a garden—a paradise of sylvan beauty. The huckleberry and the choke-cherry are laden with snow-white, almond-scented blossom. The red stalked dwarf-willow, with its long, smooth, bright-green leaves, still carries its silvery catkins, waving gracefully in the breeze and almost audibly singing—

"The willows, waked from winter's death,
Give out a fragrance like thy breath,
THE SUMMER HAS BEGUN!"

Every twig in the grove of poplars is set in motion by the unfailing breeze, fanning the air to coolness with their smooth, heart-shaped leaves. Cranberries and blueberries, crowded with blossom,

give promise of bounteous supplies of a fruit which is only less prized than the wild strawberry, whose white blossoms and beautiful leaves encircle every bluff. The violet, in every country the welcome harbinger of spring, has disappeared, and the crocus which but lately covered the prairie has paled before the anemone and the rose. Far and wide upon the open prairie, but specially loving the shelter of the bluff, a ring of the delicate white, starry blossoms of the anemone, tinged with a dull pink on the outside, unfold themselves to the glad sunshine. The American poet of nature, who so largely drew his inspirations from the prairie and its flora, has noticed the fondness of the anemone for situations where glimpses of sunshine reach it through the shadows of the trembling aspen—

“Within the wood,
Whose young and half-transparent leaves
Scarce cast a shade, gay circles of anemones
Danced on their stalks.”

In charming contrast with the white flowers of the anemone is the lovely golden-blossomed mocassin flower—or yellow lady's slipper, as the country people call it—which vies with the lily and the vetch in loveliness and luxuriance. The plant belongs to the orchis family, and has a large sac-like inflated lip, sometimes tinged with rosy

pink, the two spirally twisted petals of a bright yellow colour giving it an elegant and striking appearance. The flowers are terminal, and, so far as I have observed, solitary, although it is said that strong plants occasionally produce two or three blossoms on one stem.

The bluffs are also gay with wild roses, which here sometimes attain a height of five or six feet, whilst dwarf plants are scattered over the prairie in the greatest profusion, a tiny plant, not two inches high, often presenting a diamond-shaped cluster of four perfect flowers. The average height of the dwarf plant is about a foot, and their thickly clustering flowers brighten every wayside and lade the air with perfume from June to October. One more of the many prairie flowers which encircle the bluffs, and in return for the shelter afforded them add the greatest ornament to these flower preserves, is the wild orange lily, commonly called the tiger-lily. It is a gay and gorgeous plant, the chief floral glory of the prairie. From twelve to fifteen inches in height, the flower is terminal and solitary, though I have heard of two or three growing upon one stem. The narrow, pointed leaves of a dark green colour grow in whirls round the stem, and are not very conspicuous. The flower is a large open bell, of a rich orange scarlet within, spotted with brown or black. The outer surface of the petals is of a pale

orange, or sometimes pink, the deep red pollen of the long anthers contrasting exquisitely with their filaments, and with the transparent orange scarlet of the petals. In her "Studies of Plant Life in Canada," Mrs. C. P. Traill writes: "Many flowers increase in beauty of colour and size under cultivation in our gardens, but our glorious lily can hardly be seen to greater advantage than when growing wild on the open plains and prairies, under the bright skies of its native wilderness."

The profusion of prairie flowers, and the variety which every succeeding week produces, is very striking; some, unhappily, are rapidly disappearing as the prairie is brought under cultivation; and it will be a public calamity if these treasures of the wilderness are permitted to become extinct. Their preservation concerns every lover of nature, and it might be well if those admirable institutions, the Experimental Farms, would devote a few acres of land to their cultivation, supplying seed to settlers who have taste enough to ornament their gardens with some of the most lovely productions of the soil.

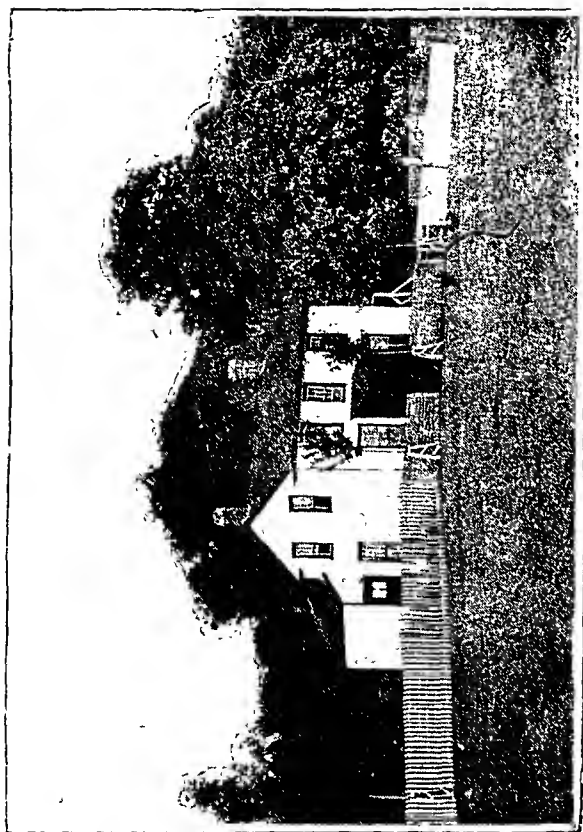
Having lingered with our traveller over the "bluffs" and "sloughs," instinct with life and beauty, let us still follow his track. He has walked, following a well-defined trail, six miles or more across the "rolling" prairie. Right and

left he has passed half a dozen homesteads, the owners of which if not distinctly prosperous, are making a living out of farms which are their own property, and are every year becoming better stocked and better cultivated. The one drawback to this district is the scarcity of water, to which reference will be made hereafter. It is of water that our pedestrian is in search;—of that river, real or imaginary, which the mirage had shown him at sunrise. He is heading due south, for a house which an hour ago appeared no more than a mile distant, but still seems as far off—so deceptive are distances in that clear, translucent atmosphere. Arriving at length at Riverside Farm, he has accepted the proffered hospitality of its owner. Whilst his hostess hastens to make such preparation for the mid-day meal as shall at once vindicate her reputation for hospitality, and her skill in meeting an emergency, a walk round the farm-yard will give an edge to his appetite which, in all probability, his host will appraise just in proportion as he evinces a real, and not a simulated interest in what he has to show him.

The man who, with a prairie appetite, has to wait for his dinner, should therefore judiciously improve the interval. But let him beware of sycophancy! There is nothing which the average

Manitoban yeoman more quickly detects, or more utterly despises. With a firm and just reliance on his own judgment, which renders him impatient of criticism, he combines too much discernment to be gratified by flattery. If you venture to criticise, before all things be honest. For, rely upon it your host is no fool; whilst the chances are he will write you down a knave if, in an access of obsequiousness, you speak of everything in words of adulation. He has high authority—if he only knew it—for holding that just praise is a debt, whilst flattery is a present, and one for which he has only contempt.

As Riverside Farm is a typical homestead, we will dog the footsteps of its owner, and hear what he has to tell his casual guest of its history and equipment. It was in the autumn of 1882 that he took possession, being—after the Government surveyors—the first white man in those parts. His capital was little more than £100, and after building a shanty 8 feet by 16 feet, instead of drawing upon his capital for maintenance through the winter months, he increased it by his labour. In the following spring he bought a team of oxen, a plough, and a few minor implements and commenced "breaking," never missing an opportunity of increasing his resources by working for and with his neighbours. His first crop was sown in



A FARMHOUSE, MANITOBA

1884, and after nine years' work he is now able to show his guest a comfortable and picturesque house, measuring 27 feet by 21 feet; a stable, 24 feet by 14 feet; machine shed, 24 feet by 14 feet; two granaries, 20 feet by 16 feet; hog-pen, 18 feet by 14 feet; hen-house, 10 feet by 7 feet; black-smith's shop, 16 feet by 12 feet; with two wells, a self-binding machine, a good roller (an indispensable but singularly neglected implement in Manitoba); a fanning mill, waggon, sleigh, ploughs, harrows, &c. In addition to pigs and poultry, he has two teams of oxen, four cows, and several head of young cattle. He has about 100 acres in crop or summer fallowed, and his farm of 320 acres is worth £700. Within ten minutes' distance is the Pipestone Creek, affording that constant supply of water which is essential for "mixed" farming, apart from which wheat-growing is a delusion and a snare.

Here, then, is the river which our pedestrian saw at sunrise. Lying very low between its steep banks, and consequently only seen at close quarters, the Pipestone Creek waters a rich country. Its banks are in many parts well wooded, the maple, willow, oak, ash, and tamarack being conspicuous; whilst wild fruits, as plums, huckleberries, blueberries, raspberries, gooseberries, and currants abound, in localities suited to their growth. Anything more pic-

turesque than some of the reaches of this sinuous river I have rarely seen. The deep ravines on its north bank, with their umbrageous pathways, are a striking feature. Some of them are crested with trees which slope down to the river's brink; others, though bare of timber, afford shelter in their respective seasons for almost every species of prairie wild flower. Very pleasant to me is the memory of summer evenings, recalling Hiawatha—

“ From his couch of leaves and branches
Gazing with half-open eyelids,
Full of shadowy dreams and visions,
On the dizzy, swimming landscape,
On the gleaming of the water,
On the splendour of the sunset.”

In such sacramental communion with nature “it is impossible not to feel,” as one has expressed it, “both purified in spirit and fortified in mind,” or, with our own poet of Nature, that

“ One impulse from a vernal wood
Will teach you more of man—
Of human nature and of good,
Than all the sages can.”

Penetrating the woods thus watered by the creek, if we miss the rich mosses of our English woods, and the ever-green and ever-beautiful ivy,

we find a luxuriant growth of creeping plants—vines and hops—which hang in graceful festoons from a height of thirty feet, length after length winding in and out, here forming loops, and there throwing out pendant, quivering arms towards some branch upon which to lean their weight. Flowerless they may be—or seemingly so—but few of the most gorgeous flowering plants excel in grace and beauty the pendulous leaves of these creepers, and their bell-shaped capsules, tinted auburn, in charming contrast with the mass of green foliage around, and the flower-bespangled carpet beneath them. As the sunset splendour fades into the brief twilight every songster in these woods is mute—save one. The lark—unlike his European second cousins—haunting the bluffs, whence he has poured in quaint but melodious trill, a glad serenade from the long-shadowed leafy willows, continues at intervals to break the silence, the last living thing to praise its Maker with its song; whilst from the creek below there comes a low, deep murmur, as of a wail for the departing glories of the summer day.

Such are the impressions, indelibly stamped upon my memory, of the “dull, monotonous prairie.” It must not, however, be supposed that the western prairie is a paradise where human lives may be

passed in sure seclusion from all the ills that flesh is heir to. The mosquitoes are to many—particularly in the first year of residence—a source of great discomfort, which might easily be mitigated if not overcome. Were they only a little more venomous and numerous, measures would be adopted to secure protection against their ingress to the settler's house, or at any rate against their vicious propensity to disturb his slumbers. But the mosquito net is rarely used; and even the "smudge," by means of which they may be driven from the house, or from the cattle who are sometimes tortured by them, is seldom resorted to. More troublesome than the mosquitoes are the black flies, which in the late summer are unpleasantly numerous. The mosquito is only troublesome in the evening, and for the most part out-of-doors; the black fly has no regard for time or place, but a very resolute determination to secure a first share at meal times of everything edible. In the autumn, flying ants are a source of annoyance; but they seldom remain many days and only fly in sultry weather. The worst of these insect pests is the deer-fly, or "bull-dog" as it is commonly called. Its bite is painful and venomous; it is more than a bite, since with its formidable jaws it tears out a piece of flesh and carries it off to be devoured at

leisure. Fortunately it seldom attacks human beings, although cattle and sheep are sometimes maddened by it.

A few words remain to be said of some of the peculiar natural phenomena of the prairie. Of these perhaps the most striking is the mirage, which we have already seen, and the glorious sunsets of which also we have had a glimpse. If an artist, in the exuberance of his genius, could depict upon canvas the quick and marvellous transitions of effect, the strange contrasts and intermingling of colour, and the celestial transparencies of a prairie sunset, his picture of a scene—"so untrue to nature, you know"—would imperil his reputation. But, as one has said, "Nature has many truths, and it takes many a long day and not a few years' toil to catch a tenth of them." And, after all, nature transcends art, and the *atmosphere* through which many of her finest manifestations are given, may be suggested but cannot be produced upon canvas.

It is the atmosphere, again, which lends an added glory to the Aurora borealis. In the stillness of night the illumination of the northern sky has a fascinating and awe-inspiring effect. One holds one's breath in watching, and feels that the prairie is enchanted. Long columns of light seem to rest upon its dark and silent base

whilst their rose-tipped tongues, flickering up towards the zenith, suggest the Manito—the awful Beyond of Indian mythology. So silently, yet so rapidly, the changing colours run along these shafts that, as Captain Butler writes, “The ear listens instinctively for sound in the deep stillness.” The summer-lightning out of a clear sky is a sight equally beautiful and wonderful. It is called by various names—chain-lightning, whip-lightning, and so forth; but the difference is not very obvious. Irregular, seemingly whimsical, but generally in curved lines the rapid flashes illuminate the whole horizon. Now it ascends *from* the horizon; again lines of light traverse the sky from east to west, sometimes single, often in duplicate curves; and yet again, in plume-like form it descends like a golden shower in three or four curved lines of exquisite beauty. These celestial pyrotechnics are not of occasional, but of almost nightly occurrence—whisperings from the Unseen, full of grace and beauty. But, as we have already seen, there is lightning of another kind—awful, sublime, and blinding in its intensity. Nature is full of antitheses, and in the forked-lightning we see this truth exemplified more forcibly than agreeably.

Amongst the phenomena of the prairie the

devastating fires must also be mentioned. Too frequently caused by carelessness or wanton mischief, the prairie fire, however grand a spectacle, is a sight one would gladly be spared. Every year as the country becomes more settled fire-guards—*i.e.*, areas of ploughed land, five yards wide—are extended, and the ravages of a fire brought more under control. On a fine frosty night, when the flames are magnified by refraction, and for thirty miles or more sweep over the great rolling sea of grass, the sight baffles description. The flames flash and quiver on the horizon, and when they seize upon stacks, or poplar bluffs, or, it may be, upon the wooden buildings of a homestead, the deep orange colour pales into the yellow of their forked tips, running up into the rolling clouds of smoke which hang like a golden aureole above them. Vast tracks of country are every year denuded of timber which, if the constantly recurring prairie fires were arrested, would enhance the value and beauty of the land, as well as tend to modify the climate. In a high wind a fire will leap any guard which the settler may plough around his homestead; and if adequate protection can only be afforded by an annual ploughing of the road allowance, it may reasonably be claimed from the Government.

The section of prairie which we have traversed may be regarded as fairly typical. Having noted some of its diverse physical formations, and seen it in some of its no less varying phases, it may be well, before considering it in relation to the question of agriculture, to devote a little space to its fauna and aboriginal population.

The flora of Manitoba is a tempting subject ; but from what has been already said some idea may be formed of its beauty and variety. Few countries have a greater profusion of wild flowers, some of which are being cultivated in European gardens ; whilst, as has been already observed, there is too much reason to fear that as the prairie is brought under cultivation many of them are doomed to extinction. The bird life of the prairie would also be a theme for a volume, but can only be the subject of incidental reference. Nor can we here deal otherwise than very superficially with its fauna.

In no part of our Colonial Empire is the process of settlement, and of developing the resources of a province, going on more rapidly than in Manitoba. A change in the fauna of the country is an inevitable consequence. The railways, which are being extended in every direction, are destructive of the quiet in which animals wild by nature delight, and the fauna of the province is much less

varied to-day than it was within a decade. The buffalo, which used to wander over its prairies in countless thousands, and whose calcined bones still whiten its plains, has wholly disappeared. The elk is rarely seen, and the moose-deer is only found in the extreme north, where it can no longer be said to have its home. Bears are seldom met with, save in the remoter woods, where the black bear is found. Although carnivorous, it is timid—unless wounded or hungry—ever on the alert, and perfectly harmless. In default of sheep, pigs, &c., it regales itself upon the abundant wild berries. The lynx will soon be equally rare, as these woods are being rapidly demolished. The lynx, however, is an animal of several species, and one of these, resembling, but much larger than the English cat, is still abundant. Its general colour is grey, inclining to redness, whence its name, *Felis rufus*. It has long thick legs, paws very large, with long and sharp claws. Three or four may occasionally be seen together on a trail in wooded districts watching for prey. The animal is timid, though ferocious when attacked; and as it preys upon destructive rodents its extermination would be unfortunate. It is commonly known as the catamount, and it is said that sometimes, impelled by hunger, it will attack a man. But, unless taken unawares, he has nothing to fear from an attack

which is seldom made in the open, but from the branch of a tree, upon which, from similarity of colour, it may easily lie concealed, and from which with unerring spring it plunges its powerful claws into the eyes of its victim, be he man or beast. A story, for the truth of which I cannot vouch, was told last winter of a clever capture of one of these animals by a girl of sixteen. Riding to school on a pony one morning, she suddenly saw a large catamount crouching near her and preparing for a spring. With great presence of mind she seized the lariat hanging at her saddle-bow, and by a dexterous throw caught the savage animal in its coils. The pony galloped off, and the monster was soon dragged to death.

Along the course of the streams the musk rat abounds, and the otter and beaver are found. But the latter is now almost confined to the banks of the Assiniboine in the North-West. The marten is following in his wake, and of the small furred animals only the skunk, the mink, and the weasel, or ermine, are at all plentiful. The skunk, which lives in communities, is the most valuable and the least agile of the polecat family, and may be easily run down by those who have not contracted a wholesome dread of its powerful means of defence. The weasel of the prairie is distinctly allied to, if not identical with, the ermine of Northern Europe.

It is about a foot in length, including the tail, which measures about three inches, the tip being black. In the summer its fur is of the weasel colour ; but in winter it becomes a pure white, the tip of the tail remaining black. Foxes abound, and, as they prey upon the gopher, the preference which they occasionally show for a fine rooster should be condoned. The prairie wolf, or coyote, occasionally emerges from the little shelter which remains to him, and when other supplies fail will worry a sheep. But he is as cowardly as he is ungainly an animal, and will run for his life at the bark of a dog or the sight of a man. His nobler cousin, the timber wolf, is more formidable, but is now seldom seen upon the prairie which every year becomes less congenial to his peculiar habits of mind and taste. His natural home is the forest and the mountain ; his natural enemy is man, whose haunts he shows consummate judgment in avoiding. Further west he is more frequently encountered, and in Southern Alberta his ravages during the past winter have been serious. Exposed flocks and herds have been constantly attacked, and a case is recorded of a large and ferocious wolf pulling down a four-year-old steer in sight of a dwelling-house.

With more pertinacity than any other of the *feræ naturæ* the badger still finds his habitat upon

the prairie. Long may he continue to do so! For he is the most deadly foe of the mischievous gopher. He is mischievous too in his turn, since in burrowing for the gopher and other rodents he throws up an enormous quantity of soil. If this happens to be upon the wheat field, more than a square yard of the growing grain will lie buried beneath a mound of earth, whilst as much more will be destroyed by the burrow. If it is upon the trail, as very frequently happens, it is rendered unsafe for driving, especially at night, when even the pedestrian may easily sprain his ankle by unwarily stepping into one of these holes. But the badger is the farmer's friend. His skin, of a bright grey colour, appears to be used principally in the manufacture of large driving mitts, but, owing to its thin texture, it is not valuable enough to render him an object of eager pursuit by the Indians. He is therefore little molested, and is probably as abundant to-day as when the white man first invaded his native haunts. These are not the woods, but the open prairie, where, leading a slothful life, never wandering far from his burrow, he grows fat upon gophers, young or wounded birds, and flesh of any description. His legs are short and strong; the long and powerful claws of the forefeet enabling him to burrow with marvellous rapidity. His habits are solitary, and though

timid, he is powerful enough to be dangerous when driven to bay. He spends most of his time in sleep, and in the winter remains at the bottom of his long, winding burrow in a torpid condition.

Amongst many small rodents of which necessary limitations forbid descriptions, space must be found for a few words respecting one repeatedly mentioned, and, as the reader may have observed, with little respect. The gopher is the pest of the prairie, but only in phenomenally dry seasons is it a source of serious trouble to the farmer. Its fecundity exceeds that of the rabbit, and its destructiveness is hardly less. In proportion to the dryness of the season it invades fields and gardens, working serious havoc. Nor is that all. As the grain ripens its destructiveness increases, being no longer confined to what it actually eats. With its powerful teeth it saws through the stem some twelve inches above the root, and from the fallen ear will eat a grain or two, and then, in wanton mischief, repeat the process through a whole day. Or it will carry off an ear, sawn from the stem, towards its hole, leave it to perish by the way, and go back for another. More than a quart of shelled grain will be stored up in a single hole for winter consumption, and as much more wasted in its transit thither. When the wheat is in shock

its depredations are continued ; large quantities of shelled-out grain, and of ears nibbled from the stem, attesting the misdirected industry of this mischievous rodent. Cats and dogs and traps, with the wild animals which make it their prey, all fail to diminish the numbers of this pest. Only a very powerful cat will attack it, and with consummate impudence it defies the pursuit of dogs. It will run with lightning speed to the mouth of its hole ; then, standing erect upon its hind legs, will utter its miserable mew-squeak, rubbing its nose with its forepaws and looking defiance at all and sundry. There it stands until the hot breath of its pursuing foe is upon it when, in the twinkling of an eye, it dives into its hole, and, whilst the dog is snorting and burrowing frantically, it is out at the other end, twenty or thirty yards away, uttering its wretched trumpet-note of defiance, and challenging a renewal of the farce. My own experience of the gopher pest was in an exceptionally dry season, for which due allowance should be made. Ordinarily, the heavy rains in June destroy them, wholesale, in the breeding season, and the succulent grasses of the prairie provide food which prevents their migration to cultivated fields. But at all times they are a nuisance, and a source of anxiety to the farmer from which he should be relieved.

It is time that the Government offered a bounty for the destruction of these pestiferous animals. They (I mean the Government, but the reader will not be misled if he applies the pronoun to the gophers) are to a large extent the owners of that vast reach of prairie where the gophers breed almost unchecked, and whence there is always danger of their descent upon cultivated fields, where wholesale destruction one day secures no immunity for the next from a repetition of the plague. A small bounty would bring out an army of children, who with dogs, traps, and snares, would work immense havoc amongst them.

In a case which came under my own observation, a child, under ten years of age, armed with nothing but a piece of string, snared forty gophers in one day. Nothing is easier, owing to the impudence of the animal, who will thrust his head out of the hole to which he has been driven, almost before the snare can be adjusted over it. But children love variety in their amusements, and the mild excitement of gopher hunting quickly palls; whilst the stimulus of a little pocket-money would enlist their sustained activity, create a spirit of emulation, and do much to abate an intolerable nuisance. If the bounty were doubled for the months of May and June, the war upon these gophers would be severest at the commencement of the breeding

season ; great numbers of the young—which otherwise would themselves breed in July and August—would perish in their holes, and some effectual check to this scourge would result.



CHAPTER III.

ENGLISHMEN, whether in England or in Canada, cannot be indifferent to the aboriginal population of the country of which they have claimed the reversion. The native Indians, the representatives of a remote antiquity, lost to the knowledge of the eastern hemisphere for perhaps 4,000 years, are well worthy of the patient study of the ethnologist and the antiquarian. It would be out of place, however, to attempt here more than a very superficial description of a race, destined, probably at no distant day, either to be merged in the general community, or to become wholly extinct. Whilst both their origin and the source of their original migrations are shrouded in mystery, the patient research of ethnologists has established the fact that the Red Indians of Canada and the United States, whose number is estimated at 375,000, have sprung from two great groups, as distinct as the Anglo-Saxon from the Norman race. These groups—the Malay-Polynesian and

the Northern Asiatic—into which all the tribes may be resolved, are represented in Manitoba by Algonquins, the Blackfeet, and the Iroquois, with their congeners the Assiniboines, the Ojibeways, the Crees, the Sioux, and other small tribes. The wandering habits of these races tend to disintegration, and the number of sub-tribes or families is enough to baffle the most patient inquiry into their history. Incredible as it may appear, no less than one thousand different Indian languages and dialects are, or have within a century been spoken, by the Red Indians of the North American continent. The tribal languages differ so radically, both in grammatical and in verbal forms, as to compel the substitution of signs for speech between members of different tribes; whilst in stature, physique, intelligence, and religion, the differences are no less remarkable.

In the early stages of British colonisation in the North-west we were in a state of perpetual conflict with the Red Indians. Under French influence they guarded the entrance west to the prairie region. Hence, probably, the name *Portage la Prairie*, given to a settlement the geographical position of which is other than it suggests. The Algonquins took the side of the French, whilst the more energetic and aggressive Iroquois—who represented the French king's prohibition of any other

faith than that of Rome—sided with the British. Their wild notions of liberty, however, made them unstable allies, incapable of and abhorring all restraint. But their friendship was assiduously cultivated, and under their guidance the North-West was explored.

The Red Indian as we see him to-day in Manitoba, with everything that is grotesque in apparel, his black hair falling on both sides of his brown face, does not answer to the description of "the noble savage" with which we have been familiarised. But if the well-made and artistically embroidered white tunic and the gay plume of feathers have disappeared, so also has the bloody scalping-knife. With the old beauty of the free denizen of the prairie has also gone "the vengeful fury that made man a mere hunter." But Manitoba, though his birth-home, is only the fringe of the territory in which he still roams ; and except for purposes of barter he usually avoids the settled districts. As we shall see, he has not, until quite recently, been to any considerable extent amenable to the influences of civilisation. No reflection is here intended upon the missionary societies whose agents have laboured throughout the Dominion, and with great devotion, to Christianise the aborigines. Their efforts have not been fruitless, though it is to be feared that the profession of Christianity is often

unaccompanied by any real conviction. It is the old story of the demoralising influence exercised by the scum of civilisation upon an inferior race. The landgrabber and the drunkard are, to the unsophisticated savage, types of civilisation and Christianity, which they do nothing to commend. At a recent meeting in Winnipeg, Mr. Holmes, a missionary of the Episcopalian Church in the district of Athabana, related the trials and difficulties of the Christian missionary. The Indians, he said, ask: "If your Bible speaks truth, why are the white men, who have been praying from their infancy, worse than the Indians? It is they who have taught us our worst vices."

There is no more pathetic story than that related of the grand old Indian patriarch Father Lacombe, whose immense influence enabled him to ignore tribal differences and to wield, as he does still, a formidable power, especially with the Blackfoot Indians. When the Riel insurrection led every Indian to look to his rifle and his scalping-knife, and when the war-cry was already sounded, he alone could sway the haughty, picturesque, grand old savage, side by side with whom he had gone through many a fierce and barbarous battle, sharing dangers and privations, until the great barbarian monarch became his fast friend, and accepted the religion of which his life was so eloquent an ex-

position. To no other person would it have been possible to extract from the great chief Crowfoot a pledge that the Indians should not rise. When the Canadian Pacific Railway was being surveyed, Father Lacombe foresaw the inevitable effects of contact with the pale faces, and told the wondering red men—his “children” as he called them—that amongst them would be many bad men, seeking to sell whisky, offering money for the ruin of the squaws. He went to the Reservation, says a writer in *Harper's Weekly*, and assembled the leaders before him in council. “Reaching the greatest eloquence possible for him, . . . he assured them that contact with these white men would result in death, in the destruction of the Indians, and by the most horrible processes of disease and misery. He thundered and he pleaded. The Indians stopped and reflected. Then they spoke through old Crowfoot: ‘We have listened. We will keep upon our Reservation. We will not see the railroad.’”

But Father Lacombe doubted still. So once again he went to the Reserve, and gathering the chief and head-men, warned them of the soulless, diabolical, selfish instincts of the white men. Again the grave warriors promised to obey him. The sequel is thus related :—

“The railroad labourers came with camps, and money, and liquors, and numbers, and the prairie

thundered the echoes of their sledge-hammer strokes. And one morning the old priest looked out of the window of his bare bedroom and saw curling wisps of gray smoke ascending from a score of tepees on the hill beside Calgary. Angry, amazed, he went to his doorway and opened it, and there upon the ground sat some of the head-men and the old men, with bowed heads, ashamed. Fancy the priest's wrath and his questions ! Note how wisely he chose the name of children for them, when I tell you that their spokesman at last answered with the excuse that the buffaloes were gone, and food was hard to get, and the white men brought money which the squaws could get. And what was the end ? There are always tepees on the hills now beside every settlement near the Blackfoot Reservation. And one old missionary lifted his trembling forefinger toward the sky, when I was there, and said, ' Mark me : in fifteen years there will not be a full-blooded Indian alive on the Canadian prairie—not one.' "

One result at least the missionaries have achieved ; they have obtained a hold upon the children of nominal Christians. These are drafted into the Industrial Schools, and instructed in the principles of the Christian religion ; whilst, until a year or two since, it was found next to impossible to persuade a heathen Indian to send his children

to school. If a missionary invited him to do so, the word would instantly go round an Indian settlement, "Hide your children; the white man has come to steal them." Tepees were struck, and a whole community dispersed in an hour.

How vague and superficial are the ideas of Christianity entertained by many who have nominally embraced it, may be gathered from an anecdote related by Captain Butler. "Not many years since," he says, "a high dignitary of the Church was not a little horrified by the request made by some recently converted chiefs that the rite of baptism should be bestowed upon three flaming red flannel shirts, of which they had become the possessors." Mumberton, of whom much was heard in bygone days, is said to have been a devout Christian, and affords an example of the childlike simplicity—not always guileless—of the Indian. He had been duly instructed in the Lord's prayer; at a certain petition he was wont to append a request that fish and moose-meat might also be given. Nor was he unmindful of the accessories of a happy life beyond the present, differing from the Christian ideal; since he stoutly demanded that the savage rites of sepulture should be bestowed upon his body, in order that he might be well prepared to make vigorous war upon his enemies in the next world.

This, however, is ancient history. Both native and Canadian missionaries have waged war against such superstitions ; and an address presented last year to the Lieutenant-Governor from an Indian chief, and others interested in missionary work, indicates not only a reverence for the Bible, but an intelligent apprehension of the blessings of Christianity. The object of the address was to secure greater efficiency in school teaching. The Indians object that the teachers in the public schools are "small" men ; they "seem to be the smallest men you have." More reasonable was the objection to small schoolrooms. "The Indian," they urge, "needs room ; he has a big country, and you give him a very small house in it." Therefore they ask for bigger rooms and bigger men—"men that are not afraid of the great Book." And this is what they say of the great Book :—

"It has changed not only ourselves, but almost everything about us. Our tents have been turned into houses and our dog-trains into horse-sleighs. Our food used to come largely from the nets and snares, but now it comes largely from the land. There has been a power to do all this, and that power is the power of the great Book. We have heard, you have heard, and perhaps our great mother, the Queen, has heard, of much power in this big country ; but it has been the power to

break the laws and make more trouble and thought for the head steersman standing where you are. We would like to remind you this morning of a thing that we think is very well known, that among all the people that we represent, this great Book and its teachings have been able to keep us, in all times of trouble, law-keeping Indians; and we would like to say this morning, on behalf of our people, that we who believe in the great Father in Heaven feel as keenly as any other people the trouble and mischief that disturb our land; and we wish we could say to every one that there is but one thing to make men live in peace together."

They express a desire for the freer circulation of the Bible amongst their people, and that they may be prepared for its reception, they add: "We want to finish this by asking you to use all your power and any power the great Mother gives you to keep wicked men from bringing fire-water and other bad things among our people at treaty times."

The Indian, as a rule, is not hostile to Christianity, but regards it as a superstition with which he has nothing whatever to do. If he has any thought of a future life, it is of that new heaven and new earth when the buffalo shall return to the prairie, over which, with his marvellously developed powers of observation, he roams from east to west,

needing no other guidance. It is with him a point of etiquette to be always well armed. His rifle is a badge of manhood, not a threat against the peace. Everywhere he respects the law, even more than the white man ; and good treatment is always sure to be reciprocated. Since, however, he is an inveterate beggar, and never knocks at a door, his visits to retired shanties sometimes occasion alarm, though there is really no cause for disquietude. He enters unceremoniously. If the family happen to be at dinner—and his visits are generally timed with that intent—he will shake hands with each one, and silently seat himself upon the floor. He is inoffensive as the cat which purrs around him. If food is offered, he places it in his wallet, and leaves as quietly as he entered ; if it is not, he waits patiently till the meal is over and then makes a sign indicative of hunger, or says that he has not tasted food that day, well knowing that his host will be glad to be rid of him on the easy terms of satisfying his real or simulated hunger.

Some of these Indians excel in embroidery in beads or silk. I have seen their men walking through the melting snow, wearing deer-skin moccasins exquisitely embroidered on the upper part. The imitative genius of the squaw is said to be so great that she can copy anything. Flowers and ferns are her favourite subjects, but they fre-

quently invent their own patterns, which are most approved by the bucks, especially amongst the Huron Indians.

In its dealings with the Indians—who are far less fanatical than their brethren over the border—Great Britain has always recognised their claim to consideration as the original occupiers and owners of the country of which she has taken possession. The Dominion Government has followed the same policy, rejecting the theory, which has been too much acted upon in the United States, that the Indian has no right to the territories over which he wanders, simply because the civilised man can better develop them. There is a separate Department of State for the administration of Indian affairs; and every possible effort has been made by the Government to civilise its 122,500 Indians—of whom 25,700 are located in Manitoba—by means of schools, missions, and instruction in agricultural pursuits. Reserves allotted to them have been jealously guarded against the avarice of landgrabbers, and last year 69,500 Indians were reported as located upon these Reserves in different parts of the country. This is certainly a most striking result of the efforts to instil the principle of industry, even though on an average they actually cultivate only one acre of land per head.

It is to be hoped that the day is not distant

when the necessity for feeding and clothing large numbers of the Indian population will cease, as nothing can be more prejudicial to the formation of habits of industry and thrift. "As soon," writes Professor Macoun, "as Indians can be awakened to a sense of individual rights in property and that lazy relations must depend upon themselves, an improvement will take place. At present food seems to be common property, and as long as it remains such little attempt will be made by the majority to get out of their periodic states of semi-starvation." Land which, with their consent, the Government has sold cannot be restored; but other land might perhaps be allotted on equitable terms to such as are willing to identify themselves with the general population, and earn their bread honestly side by side with the white man. From the voluntary sale of lands and moneys accrued from annuities secured under treaty, an Indian fund has been created which, in June, 1890, amounted to \$3,479,200. In 1890 the expenditure on the Indian population, in addition to what was provided from this fund, exceeded \$1,000,000, of which nearly one-half was expended in the purchase of food and clothing.

Of the 25,700 Indians in Manitoba, only 10,400 are nomadic; few of these profit by the schools and farm instruction which the Dominion Government

is, under treaty obligation to provide. These treaties with the Manitoban Indians date from 1871. In the whole Dominion there are about 200 school-houses in operation, with over 6,000 pupils, of which forty-one, with about 3,200 pupils, are in Manitoba and the Territories! The number, so far as I could learn in the absence of statistics, has been stationary for the last year or two, but will doubtless increase as the Indian recognises the fact that civilisation, and the acquisition of habits of industry, are the alternative of extinction: that idleness, when not in the chase or the war-path, is not a condition to be proud of. No sane man will begrudge him "the red stone pipes for smoking" which Old Nokomo filled for Hiawatha—

"With tobacco from the South-land
Mixed with bark of the red willow,
And with herbs and leaves of fragrance."

But he must learn that to smoke and sleep all day in a wigwam of painted skins is not paradise; that to make his squaw his slave is a crime against society, and that personal independence is a higher condition than the tribal bondage to which the tradition of unnumbered centuries has hitherto consigned him. The generation who cling to the belief that the buffalo will return to the prairies, and that two mountains are to belch forth mud to


bury the palefaces and bring back to the Indians the good old times, is passing away. Hitherto it has proved impossible to convince the average Indian of the advantage or duty of labour. His gun, his fishing-rod, the wild berries which he shares with the black bear—who perhaps best appreciates them—and the mushrooms which grow in profuse abundance, supply the needs of which he is conscious, and he relies upon the Government for sustenance when these fail. In some districts the squaws gather mushrooms and sell them in the town. Towards the end of August they are not only abundant, but attain a quite fabulous size. Professor Macoun writes: "I measured one specimen that was $33\frac{3}{4}$ inches in circumference, and $3\frac{3}{4}$ inches through the cap. The stem was over two inches in diameter, and the weight over 3 lb." They grow, he says, in "fairy rings," often more than forty feet in diameter; "some rings were found to contain so many that taking all, good and bad, from one ring we could almost load a cart." This natural harvest is lost to the Indian through sheer indolence. The squaws will gather the mushrooms and offer them for sale, but as they will not trouble to separate the good from the bad, the storekeeper will seldom purchase.

The tribal system is the great barrier to individual industry, and the chief hindrance to

civilisation. Be a man ever so industrious, no fruitful corn-fields hold him to one spot ; he has no individuality ; no personal, exclusive right to the fruit of his labour. If he settles upon the Reserve, raises stock, or cultivates the soil, its produce is not his, but may be appropriated by any member of his tribe, however sunk in debauchery and idleness. The one hope for the rising generation of Indians is the extension of Industrial Schools, where the young of both sexes separated from the degrading influences of barbarism, may not only receive instruction in trade and agriculture, but, in the words of the Rev. E. F. Wilson—the generous and indefatigable friend of the Indians—“be constantly in contact with civilised modes of life, of thought, action, speech, dress, and surrounded by a thousand beneficent influences.” Thus only can he be led to forget his past, to desire freedom from tribal bondage, and to share the blessings of civilisation equally with the white man who taught him his place in the world’s advance, and snatched him from annihilation and extinction.

The Government industrial training schools are largely supplemented by the various religious denominations. The Presbyterians, the Methodists, and the Episcopal Church are all doing excellent work in this direction, assisted by

Government grants. An interesting experiment has been tried at Elkhorn, of which a short account will interest the reader. Rev. E. F. Wilson had already established two schools at Sault St. Marie, the story of which has all the interest of romance. After visiting the Indians in the North-west, in 1885, ~~he conceived a strong desire to establish a~~ Branch Home for the children of these painted and feathered heathens who were growing up in vice and ignorance, fixing upon Elkhorn as the most desirable locality. Burdened with a heavy weight of responsibility in connection with the schools at Sault St. Marie, he determined to appeal to the people of Ontario for assistance in carrying out the project upon which his heart was set. His appeal met with little response. One night, however, after he had addressed a meeting at Owen Sound, a gentleman whose sympathy had been aroused said to him, "Why don't you fire off a few red-hot shot, and tell the people what it is that you want? You will soon get the money." Mr. Wilson went home, pondering how best to act upon this singular counsel. He sat up through the night, writing an appeal for his Indians, which he issued as a leaflet, printed in red and black letters, under the title "Red Hot Shot." The sequel shall be told in his own words:—



" In this leaflet I described briefly the neglected condition of the Indians in the North-west and my desire to establish a Branch Home in their midst, and the last clause of the leaflet was worded something in this way: 'If any person should feel drawn to give \$1,000 towards the proposed object, I shall regard it as the leading of providence and at once take steps to erect the institution.'

" There was living at that time, at Elkhorn, in Manitoba, a merchant—not a rich man, a man just in ordinary circumstances—but he took great interest in the wild Indians living about him; he always treated them kindly and justly and the Indians had given him the name of 'Washakada,' which meant 'all that is good.' One evening this merchant said to his wife, 'I wish I could see my way to an institution being established amongst these poor Indians. I think if I could see any prospect of an institution being established I would like to give \$1,000 towards it.' Two or three days later one of my 'Red Hot Shots' came into that man's hands. *How* it came to him we do not know to the present day. Surely the Lord directed it. He took it and read it, and immediately wrote to me: 'If you can see your way to establish an institution for Indian children in this neighbourhood I am prepared to give you a thousand dollars towards it.' His letter came

to me on Christmas eve, and it seemed like a Christmas box from the Lord. When spring came I went up to Elkhorn, made the acquaintance of this merchant and talked over my plans with him. We had less than \$2,000 in hand, but we resolved to make a beginning. So we purchased a site in the immediate vicinity of the village of Elkhorn, erected a frame building and received some ten or twelve pupils. In the meantime I had applied to the Indian Department for a grant. The answer came the following spring. Mr. Vankoughnet, Deputy Superintendent General of Indian affairs, wrote to me privately and said, 'You will probably be a little surprised at the amount of grant which the Department is prepared to place at your disposal. The Department approves your scheme and will give you \$12,000 (£2,400) for building and equipment and also an annual grant towards maintenance.' Thus, in the providence of God, we were enabled to erect substantial, well-equipped buildings at Elkhorn, the Washakada Home for girls, the Kasota Home for boys, and in the middle, between them, a Central Building, in which the pupils all meet for their meals and for school. At present we have thirty-seven pupils at our Elkhorn Homes."

Occupying a conspicuous position in the little

town, these buildings are its greatest ornament. I visited the Home on a bright, warm day towards the end of November. It was mid-day, and about a dozen children, clean and dressed in a simple uniform of navy blue, trimmed with red, with bright brass buttons, were at play in an open space around the schools. Though shy, and apparently unwilling, rather than unable to speak English, they were mirthful and happy. Entering the central building, I was courteously received by the Superintendent, whose offices, with separate dining-rooms for the staff and for the children, occupy the ground floor, whilst in the rear of the building is a capital laundry. Proceeding to the schoolroom upstairs, I found other children amusing themselves with their slates, casting up long rows of figures—with what accuracy I am unable to say—and quite evidently finding school-work no weariness to the flesh. The schoolroom, considering the maximum number for which it is designed, is spacious and airy. Adjoining it is a smaller room for the senior class. Both are plainly and suitably furnished. The remaining space is occupied with the Superintendent's apartments, and a room intended for use as a hospital.

The Kasota Home for boys is a separate building, the most easterly of the three. Here are the assistants' rooms, the boys' apartments, and a guest-

chamber. The dormitories are a model of neatness. Each boy over fifteen years of age has a separate bed ; larger beds, accommodating two sleepers, are provided for the smaller boys. The linen sheets were scrupulously clean, and are changed every week. Each boy has a cupboard where clothes, boots, &c., are required to be kept in perfect order and cleanliness. The building to the west is the Washakada, and contains the apartments of the matron, the girls' dormitories, sewing, and store-rooms.

The Indians are more willing to send their boys than their girls to these schools ; since the latter are still regarded as property to be bartered in marriage for so many ponies, and not needing education. The children come from distances of 200 miles, east and west—Blackfeet, Sioux, Crees, and other tribes—and the fact that the language of one tribe is unintelligible to the children of another favours their acquisition of English, which thus, in the playground as well as in the school-room, becomes the common medium of intercourse. The girls are taught house-work and sewing ; whilst the boys learn carpentering, shoemaking, and other trades. A conspicuous need in these Homes is greater facilities for practical instruction in agricultural pursuits ; and the Indian Department, which contributes one hundred dollars per annum towards the maintenance of each pupil,

could render the institution no greater service than by supplementing its past munificence with a grant of land for this purpose. Many of the boys who now fail to return after visiting their homes in the holiday season—although travelling expenses are paid—would be retained, permanently rescued from barbarism, and trained up to a life both useful and congenial to an inherited love of free outdoor activity.

It is gratifying to learn from the recent official Statistical Record that the interest taken by Indians in the education of their children is steadily on the increase; and that the persevering endeavours of the Government to persuade the Indian population to abandon their restless and wandering habits and stay on their Reserves, are at length bearing fruit. The increase in the number of pupils in the Indian Schools is most conspicuous in Manitoba; and although it has remained nearly stationary for the last three years, it has risen in the decade from 971 to 3,268. The effect of their increased education is reported as "evidenced in many ways, notably by improvements in the way of dressing, much greater attention to personal cleanliness, and improved buildings, all of which signs are very important, as they indicate a gradual but effectual change of thought and habit." It is also shown in growing habits of industry, and a disposition to profit by

the generous endeavours of the Government to instil into their minds the first principles of farming. This, again, is most apparent in Manitoba where, although the Indians have only 12,000 acres of land cultivated, the *newly-broken land* is 1,485 acres against 4,000 acres for all Canada.

But however encouraging may be these indications of a favourable solution of the perplexing problem with which the Canadian Government has to deal, its inherent difficulties remain. If all, or even a considerable majority of the Indian children could be induced to pass two or three years in the Industrial Schools the forecast would be encouraging enough; but the natural instincts of the Red Indian cannot be eradicated by only a few months' contact with civilised modes of life, and the beneficent influences of Christianity. The tribal system must be abandoned before any permanent result can be obtained by the efforts now being made to bring the adult Indian within the pale of civilisation, or to attach him to the soil as a cultivator. His wandering habits, and the insecurity of property entailed by the tribal system remain, as they have been in the past, the great hindrance to progress.

A curious instance of the Indian's ingrained natural instincts was related to me on perfectly reliable authority. A young Indian of good abilities,

whose father was a nominal Christian, was sent to McGill College, Montreal, that he might receive an education appropriate to his chosen vocation of a minister of the gospel. He worked assiduously, carried off many prizes, and distinguished himself as a student in the theological hall. Eventually he entered the ministry, became popular as a preacher, and for twelve months everything promised well. One Sunday evening, however, he electrified the church officers by announcing, without a word of explanation, that the church would be closed for six months. With resolute taciturnity he listened to remonstrance, then hurried to his home. Here he doffed his clerical broad cloth, and at three o'clock the following morning was seen running through the town, clothed in an Indian blanket, with painted face, and a plume of feathers on his bare head. A party of the tribe of which he was a member had arrived on the Sunday morning; and the sight of their tepees, their instruments of war, of fishing and the chase, had stirred the native blood in him, and he yielded to the overmastering temptation to cast in his lot with them. It was a scandal no doubt, and censorious reproach is such an eminently Christian virtue! I wish I could tell the sequel to the story—whether this reprobate returned and resumed his ministry at the end of the six months; but that period had not

elapsed when I left Manitoba. I prefer to assume the probability of mixed motives in the young Indian minister's eccentricity. Oh, but, says the arm-chair pietist, he yielded to temptation! True; and just so far as that is true, it is right that the man who, in his own sphere, has never so yielded, should cast a stone at him. Meanwhile, it might be well for his own soul's health for him to recall the words of the lamented Laureate—

“The sin that practice burns into the blood,
And not the one dark hour which brings remorse,
Will brand us after, of whose fold we be.”

After all, it is probable that this impetuous young man, with a yearning which we cannot measure for the free life of his ancestors and of his own boyhood, saw, even in its gratification, an opportunity of moving his comrades to embrace the blessings of civilisation and Christianity. He knew them well; knew that when game and fish are abundant the Indian prospers, his best qualities are displayed, and he is amenable to wise and kindly guidance; whilst in the winter all such traits are commonly dormant; sunk in idleness and profligacy he leaves his squaw to keep off the wolf by snaring small game, as rabbits, and even foxes and gophers; or, accompanying her to the Agency, he will lie and beg, and carry off three days' rations which he will gluttonously consume before night-fall.

Possibly the exchange of the pulpit for the wigwam, reprehensible though it was, was not wholly selfish, not entirely due to the caprice of the latent lawlessness of inherited instincts, not wasted energy; but all of these in combination—or in conflict—with a noble yearning for the true well-being of his kinsmen according to the flesh.

The rapid settlement of Manitoba has had the effect of drawing north and west many of the half-breed pioneers of civilisation, who formerly fished in its rivers, and hunted the buffalo and the moose on its wide prairies. They are sometimes called Metis, from the Spanish word *mestizo*, indicating Indian-mixed blood. Generally of French and Indian parentage; the mixture of Scotch blood is sometimes indicated by familiar names. The French betrayed no such repugnance to intercourse with the native Indians—or even to marriage with the Indian women—as the average Briton has done. They seem especially to have cultivated the friendship of the Crees, whose women were superior to those of other tribes, alike in mental and moral qualities. Not a few of these however—or, in Canadian phrase, “quite a few”—have married their daughters to gentlemen in good business and even official positions. But whilst the Indian blood of the Metis is so diluted as frequently to leave little trace, either in complexion, speech

or character, intercourse with the whites is comparatively rare. The law of reversion to type, with which Mr. Darwin has familiarised us, is naturally operative here, producing an approximation towards the Indian type of their progenitors. The affiliation of races is thus checked, and in a few generations the half-breeds of Manitoba and the North-West are likely to become wholly merged in the native races, to the great advantage of the latter. The semi-nomadic life of the past has already ceased to characterise them.* Industrious, intelligent, and many of them fairly well educated, a very large majority live upon their Reserves, untrammelled by tribal rights which deprive the Indian of all security in his property.

When Manitoba was taken over by the Dominion Government, every half-breed received an allotment of 240 acres of land. No less than 1,400,000 acres of the very best land in the central part of the province were set apart to extinguish the half-breeds' claims of various kinds. The less thrifty or more nomadic among them sold their allotments, often for a merely nominal consideration, and the great bulk of their reserves have thus come into the possession of European settlers. The Rev. E. F. Wilson writes: "The character of the Metis is a guileless nature, easily swayed; a clear but not strong moral sense; good purpose, but weak will.

Fickle and impulsive, they are free from greed and egotism, and are incapable of deliberate, calculating fraud. They are kind-hearted, genial and sympathetic, and abound in hospitality, sharing cheerfully all they have with friends or strangers alike ; but whenever destitute, they ask from their neighbours as freely as they give themselves. They resent an injury quickly, but are as quick in pardon, and they do not treasure up animosity. With a quick innate-ness of perception, they can reach any objective point, through forests or over virgin prairies, noticing on the way, minutely, all the details of the landscape, which remain indelibly printed on their memory. Their cottages along the Red River are mostly without lock and key, and are under the sole safeguard of mutual honesty. Like the Indian, they are fond of 'fire-water,' when procurable ; and fond of pleasure, the great drawback to steady industry. Submissive to their spiritual teachers, they become better Christians than the white frontiersmen. Their innate love of roving freedom indisposes them greatly to the restraint and confinement of school education ; and wherever schools have been opened among them, the attendance is irregular and never of long duration."

They have no language worthy of the name, yet are great linguists. Most of them understand English, whilst every half-breed can speak French.

Amongst themselves the less educated speak an Indian patois in which Cree words predominate, but other dialects are incorporated. Hence many are able to gain a living as interpreters and guides at the posts of the Hudson Bay Company. They have deserved well of the Government ; for there is no doubt that much of the good feeling subsisting between the red men and the white who took possession of their happy hunting grounds, is due to the influence of the half-breeds, who, as Lord Dufferin has said, combining as they do the hardihood, the endurance, and love of enterprise generated by the strain of Indian blood in their veins, "with the civilisation, the instruction, and intellectual power derived from their fathers, have preached the gospel of peace and good will, and mutual respect, with equally beneficial results to the Indian chieftain in his lodge and to the British settler in his shanty."

In close proximity to Winnipeg are two other communities—the Mennonites and Icelanders—both valuable immigrants, whose settlement in the province has been liberally encouraged. Starting from opposite ends of Europe, without any mutual concert or indeed knowledge of each other, pioneer parties of both communities arrived at Winnipeg almost simultaneously.

The Mennonites, a peculiar, mystical, German-

speaking sect, professing adherence to the Lutheran faith, and domiciled in Western Russia, had suffered persecution from a government which, *semper idem*, recently announced to the Finns that *the will of the Czar is the only law*. By their creed forbidden to serve in war, and from conscientious conviction separated from, and equally in social matters as in religion incapable of assimilation with, their neighbours, they were, by the autocratic will of the Czar, exiled from their old homes about the Baltic, and compelled to settle near the sea of Azoff, where the law of military service pursued them. They enjoyed in Russia the reputation which they have earned in Manitoba, of peaceful, industrious, and thrifty subjects. The Canadian Government assigned them extensive reserves twenty miles south of Winnipeg; one settlement, of eight townships, on the east of the Red River, known as the Rat-River settlement; and another on the west side of the river, of seventeen townships, reaching down to the International boundary line, where some of them by their industry have acquired considerable wealth. Of this interesting community Lord Dufferin said: "Although I have witnessed many sights to cause me pleasure during my various progresses through the Dominion, seldom have I beheld any spectacle more pregnant with prophecy, more fraught with promise of a successful future, than

the Mennonite Settlement. When I visited these interesting people they had only been two years in the province, and yet in a long ride I took across many miles of prairie which but yesterday was absolutely bare, desolate, and untemanted, the home of the wolf and the eagle, I passed village after village, homestead after homestead, furnished with all the conveniences and incidents of European comfort and a scientific agriculture; while on either side the road corn fields already ripe for harvest, and pastures populous with heads of cattle stretched away to the horizon."

Unhappily for themselves a considerable number of these thriving settlers were induced, after the bad harvest of 1889, to emigrate to Oregon. One-fourth of these have recently returned to Manitoba, wiser if sadder than when they allowed themselves to be beguiled by the blandishments of American railway agents; and it is reported that "the balance will come back as soon as they can find means to return."

To the Icelandic immigrants the Government assigned several townships on the west of Lake Winnipeg, and their numbers are annually augmented. Possessed of a sturdy independence they make good farmers, but are less clannish than the Mennonites. A year or two since many of these thrifty colonists migrated to Mussel, where they

now form a prosperous community. They have shown great astuteness in practising mixed farming, each settler, it is said, having on an average twenty head of cattle and a team of horses. An illustration of their fortitude and frugality was recently furnished by one of their number who, having lost both legs and one arm, made his own stumps, until by steady industry he had saved enough money to buy artificial limbs. With the aid of these he has taken up a homestead, cultivated fifteen acres, and has thirty sheep and ten head of cattle. Intelligent and anxious to learn, rather than educated, many of the Icelanders prefer the town to the prairie, and take a keen interest in Canadian politics. Much progress has been made since Lord Dufferin's visit, fourteen years ago. Considering the secluded position of their nation for one thousand years, their geographical isolation, and the unfavourable nature of the climate of their island home, it would be unreasonable, as his lordship observed in the speech already quoted, to "expect that a colony from thence should exhibit the same aptitude for agricultural enterprise and settlement as would be possessed by a people fresh from intellectual contact with the higher civilisation of Europe." They are, however, "endowed with a great deal of intellectual ability and a quick intelligence. . . . They are well conducted, religious, and peaceable. Above all

they are docile and anxious to learn." This is the general testimony of intelligent observers. In an interesting article in the *Weekly Tribune*, Miss Helen Gregory writes, "The Icelanders are an intellectual race and very fond of education. In the library of one farmer was found a copy of Byron, Whittier, Scott's 'Rob Roy,' Huxley's 'Physiology,' De Cope's 'Natural History,' and a Webster's 'Unabridged Dictionary.' He was asked if when reading English he used the dictionary often. 'No, except when I read scientific works,' was the rather startling answer." Less enterprising than the Mennonites, these Icelanders are steady and industrious, and are much valued as farm servants. They regard Canada as their natural home, and maintain a sturdy belief in the legend of its discovery by their ancestors four hundred years before Columbus was born.

CHAPTER IV.

THE Dominion lands in Manitoba, within "the fertile belt"—or so much of them as lie within twenty-four miles on either side of the Canadian Pacific Railway—are surveyed in quadrilateral townships. Each of these contains thirty-six sections of one square mile or thereabouts—that is of 640 acres. A road allowance, one chain wide, runs between each section north and south, and between every alternate section east and west, making a network of public roads crossing at right angles. In the earlier surveys, covering the greater part of Manitoba, the road allowances were one chain and a half, or 99 feet, wide on the four sides of every section, so that the roads in both directions are just one mile apart. The following diagram represents the sections of a surveyed township:—

SUNNY MANITOBA:

TOWNSHIP DIAGRAM.

1 MILE SQUARE.	N.					
	31 C.P.R.	32 Gov.	33 C.N.W. or C.P.R.	34 Gov.	35 C.P.R.	36 Gov.
	30 Gov.	29 Schools.	28 Gov.	27 C.P.R.	26 H.B.	25 C.N.W. or C.P.R.
	19 C.P.R.	20 Gov.	21 C.N.W. or C.P.R.	22 Gov.	23 C.P.R.	24 Gov.
	18 Gov.	17 C.P.R.	16 Gov.	15 C.P.R.	14 Gov.	13 C.N.W. or C.P.R.
	7 C.P.R.	8 H.B.	9 C.N.W. or C.P.R.	10 Gov.	11 Schools.	12 Gov.
	6 Gov.	5 C.P.R.	4 Gov.	3 C.P.R.	2 Gov.	1 C.N.W. or C.P.R.
W.						E.
						S.

C. P. R.—Canadian Pacific Railway Company's Lands. GOV.—Government Homestead Lands. SCHOOLS.—Sections reserved for support of Schools. H. B.—Hudson Bay Company's Lands. C. N. W.—Canada North-West Land Company's Lands for as far west from Winnipeg as Moose Jaw only.

Each of these sections is divided into quarter sections of 160 acres. The even-numbered sections, except 8 and 26, where not already taken up, are open for homesteading; and the odd-numbered sections except 11 and 29, are the property of the Canadian

Pacific Railway, and are offered for sale at prices ranging from \$2½ to \$10 per acre. On payment of a registration fee of \$10, any person who is the head of a family, or any male above the age of eighteen years, may, on making application to the local agent of a district, obtain homestead entry for one quarter section of the class of land open for homesteading. This entry entitles the holder to occupy and cultivate the land, and to secure an eventual title to the same as a free grant from the crown on the following alternative conditions:—

(1.) The homesteader shall begin actual residence on his homestead and cultivation of a reasonable portion thereof within six months from date of entry, unless entry shall have been made on or after the first day of September, in which case residence need not commence until the first day of June following, and continue to live upon and cultivate the land for at least six months out of every twelve months for three years from date of homestead entry.

(2.) The homesteader shall begin actual residence, as above, within a radius of two miles of his homestead, and continue to make his home within such radius for at least six months out of every twelve months for the three years next succeeding the date of homestead entry; and shall, within the first year from date of entry, break and prepare

for crop ten acres of his homestead quarter-section ; and shall within the second year crop the said ten acres, and break and prepare for crop fifteen acres additional—making twenty-five acres ; and within the third year after the date of his homestead entry, he shall crop the said twenty-five acres, and break and prepare for crop fifteen acres additional, so that within three years of the date of his homestead entry he shall have not less than twenty-five acres cropped, and fifteen acres in addition broken and prepared for crop, and shall have erected on the land a habitable house in which he shall have lived during the three months next preceding his application for homestead patent.

(3.) The homesteader shall perfect his homestead entry by commencing the cultivation of the homestead within six months after the date of entry, or if the entry was obtained on or after the first day of September in any year, before the first day of June following, shall, within the first year after the date of his homestead entry, break and prepare for crop not less than five acres of his homestead ; shall, within the second year, crop the said five acres, and break and prepare for crop not less than ten acres in addition, making not less than fifteen acres in all ; shall erect a habitable house upon his homestead before the expiration of the second year after his homestead entry, and before the commencement of

the third year shall *bond fide* reside therein, and cultivate the land for three years next prior to the date of his application for his patent.

Much prairie land is destitute of timber which, both for fuel and for building purposes, is essential for the settler. In such cases it is provided that "Homestead settlers, whose land is destitute of timber, may, upon payment of an office fee of 25 cents, procure from the Crown timber agent a permit to cut the following quantities of timber free of dues: 30 cords of dry wood, 1,800 lineal feet of building timber, 2,000 poplar fence rails, and 400 roof poles. Homestead settlers may also obtain a permit, on payment of the same fee, to cut burnt or fallen timber of a diameter up to 7 inches inclusive, for fuel or fencing, for their own use.

"In cases where there is timbered land in the vicinity available for the purpose, the homestead settlers, whose land is without timber, may purchase a wood lot, not exceeding in area twenty acres, at the price of \$5 per acre cash."

Provision is also made for the settler who desires grazing land adjacent to his homestead. In the Territories, such lands not exceeding an area of 100,000 acres under a single lease, are leased for ranching purposes only after public competition; but in Manitoba exception is made in the case of the *bond-fide* settler, to whom a tract of land not

exceeding four sections is leased, without public competition, for a period not exceeding twenty-one years.

The land available for homesteading in Manitoba is being very rapidly absorbed. Already the privilege of pre-empting is withdrawn; and the settler who intends to farm more than 160 acres should ascertain, before entering for his homestead, that an adjoining quarter section—or whatever area of land he may require—is available for purchase. Unimproved Government lands may be bought at from \$2 to \$2½ an acre. In 1890 the Canadian Pacific Railway sold 192,000 acres at an average price of \$3.75, whilst the North-West Land Company realised \$6 an acre for their sales. Extensive tracts of land are held by syndicates for much higher prices. Everything points to a rapid rise in the value of land. It is stated in the official Statistical Year-book that, with the exception of the years 1882 and 1883, the area of land entered by actual settlers under the provisions of the Dominion Lands Act was greater in 1889 than in any previous year. In 1885, owing to the disturbance in the North-West, the area entered for homestead purposes only amounted to 249,552 acres, but since then the increase has been continuous; the increase in 1888 over 1887 amounted to 100,833 acres, and in 1889 over 1888 to 275,717 acres.

The payments for homestead fees on Dominion Lands in Manitoba and the North-West, which in 1888 amounted to \$28,500, rose in 1889 to over \$50,000, and the advance was more than maintained in 1890 and 1891.

Two or three good harvests would in all probability bring about a repetition of the famous land boom of 1882-3. In the latter year the homestead fees ran up to \$127,200; and whilst in 1889 the total area set out for settlement was 516,960 acres, in 1883 it reached 27,000,000, and the number of homesteads taken up in these two years were respectively 3,282 and 168,750. If these figures were not official they would be wholly incredible. The following are the comparative figures for the last three years for which returns are available of transactions in Dominion Lands including sales. 1887, 521,791 acres; 1888, 687,994 acres; 1889, 1,085,793 acres. The reader will draw his own conclusions. It should be remembered when we are told of 200,000,000 acres of land in the Dominion awaiting settlement, that probably less than half of this vast area is good agricultural land. Of such, 80,000,000 acres are already fully surveyed, in 500,000 quarter sections. The area now annually taken up, by homesteading and purchase, exceeds 1,000,000 acres. At the present rate of increase, without the recurrence of a

"boom" such as in 1883 occasioned so enormous an increase in the sales, they will reach 2,000,000 acres in the present year. A repetition of the boom of 1883 must inevitably so enhance the value of land that the system of free grants will be either abolished or greatly modified.

The above figures relate to the whole Dominion. In Manitoba the quantity of land taken up for actual settlement in 1890 was in excess of any year since 1882, the total reaching 600,000 acres.¹ The total acreage under crop, which in 1887 was 663,764 acres, increased in 1891 to 1,324,841 acres, a difference of 661,077 acres; to which 50,000 acres must be added as the area under flax, and 714,000 acres newly broken and ploughed, ready for seeding in the coming spring.

¹ The following interesting intelligence comes from Ottawa on the very day that these sheets are sent to the printer :— "The Hon. Thomas M. Daly, Dominion Minister of Interior, announces that the year 1892 was the best ever known as regards the settlement of Manitoba and the North-western Territory. 4,948 persons acquired farms of 160 acres each from the Government, an increase of 40 per cent. on the previous year. In addition to these, 1,632 settlers purchased lands from the Canadian Pacific Railway Company." Assuming that no purchaser from the Canadian Pacific Railway Company exceeded the minimum of 160 acres, the new land taken up for settlement in Manitoba and the Territories in 1892 was no less than 1,052,800 acres, an increase over 1890 of 65 per cent., and very nearly equal to the total for the whole Dominion in 1889.

The Annual Commercial Report of the United States Consul at Winnipeg shows very clearly the rapid development of the trade of Manitoba, partly due to the increased shipment of cattle. The report is for the consular district of Winnipeg, or the area between longitudes 87° and 110°, and from the International boundary to latitude 70° N.

YEARS.	IMPORTS.	EXPORTS.	TOTAL.
1872	\$ 1,413,585	\$ 295,452	\$ 1,709,037
1873	1,288,257	256,324	1,544,581
1874	2,423,990	565,323	2,989,313
1875	1,865,579	587,547	2,453,126
1876	2,318,391	672,666	2,991,057
1877	1,876,753	695,970	2,572,723
1878	2,545,421	849,725	3,395,146
1879	3,422,375	537,574	3,959,947
1880	4,637,668	518,665	5,356,333
1881	7,362,640	636,197	7,998,837
1882	16,199,772	871,614	17,071,386
1883	24,291,767	1,843,481	26,135,248
1884	12,784,719	1,988,278	14,772,997
1885	10,983,713	2,627,341	13,611,054
1886	7,820,959	4,297,533	12,118,492
1887	9,157,843	7,492,371	16,650,214
1888	7,716,494	6,507,202	13,359,606
1889	7,895,116	4,184,480	12,079,596

During the first three years of this period the foreign imports were subject to the tariff of the Colony of Assiniboia—4 per cent. *ad valorem* and a specific duty upon wines and spirits of twenty-five cents per gallon, and with a liberal free

list—but since 1874 the Canadian tariff, varying from 18 to 35 per cent., has been in force. The extraordinary increase from 1875 to 1885 represents the exceptional importation incident to the construction of the Canadian Pacific Railway. In the column of exports, the figures of the first ten years represent quite exclusively the shipment of furs, mostly to England, but after 1882 the exportation of a surplus of grain and cattle swelled the total movement of Manitoban products more than ten-fold, amounting in 1887—a year of a remarkable crop, to \$7,492,371.

In 1889 the wheat crop was injured by drought, and in 1890 by an exceptionally wet season and an August frost. The produce in the two years was respectively 7,201,000, and 14,665,000 bushels; whilst for 1892 the crop, so far as at present ascertained, did not much exceed that of 1890. The fact is generally attributed to an exceptionally bad season, cold weather during the month of June arresting the growth of the plant, and a rain storm in October injuring the unthreshed stacks. But the real explanation appears to be *the poor seed that was sown*—the unsaleable frozen wheat of 1891. The result was forecast in the *Bulletin* (34) of the Agricultural Department, in which it is remarked: "Where poor seed was used the crop is not as good as it ought to be, the growth being

thin." The area under wheat cultivation was in 1890, 19·7 per cent. greater than in 1889, and this advance was fully maintained in 1891 and 1892, and will be greatly exceeded this year.

The wonderful development of trade since 1883 is obviously due to the great extension of the railway system. In 1880 a railway of 65 miles connected Winnipeg with the International frontier. Now ten lines of railway, all of which are throwing out branches, centre in Winnipeg. A year ago there were 1422 miles of completed railway in Manitoba, including 266 miles of extensions of the Northern Pacific, whilst projected developments will shortly extend to every part of the province where a railway is at all needed.

The Canadian Pacific Railway Company are pushing the Glenboro' extension to intercept the Souris line at Plum Creek, and a communication from Manitoba due north to the Saskatchewan coal fields will be completed simultaneously, thus opening up coal fields both north and south. Vigorous measures are also in progress for a direct connection of Duluth and Winnipeg during the present year. There is, moreover, a fair prospect of the long-projected railway to Hudson Bay—of which forty miles are actually constructed—becoming an accomplished fact. The project of opening a new route through Hudson Straits and Bay by



steamer is perhaps the most important of all these enterprises. The route for the transmission of emigrants and produce between Manitoba and Liverpool would be shortened by 500 miles, or more than two days; and though the difficulties to be overcome are great, especially in connection with the navigation of Hudson Straits, the promoters of the railway are quite confident that they will be surmounted. If, as they maintain, navigation will be open for six months in the year, the saving to a loaded steamer of two days each way will compensate for occasional detention by ice in the Straits.

Manitoba is essentially an agricultural province, and from the nature both of its soil and climate, as well as its geographical position, it is certain that agriculture will always be its principal industry. The soil, as is well known, is a rich, argillaceous mould, or loam, formed by the lake deposits and forest growths of ages. Its average depth is from two to six feet, and it rests upon a deep and very tenacious clayey subsoil. The dark colour of the soil is no doubt in part attributable to the long accumulation of the charred grasses left by annual prairie fires, whilst its richness must be assigned to the same cause, along with the accumulation through long centuries of other decayed vegetable and animal matter, and the droppings from birds

and untold millions of animals. But this "profusion of stored-up wealth" is not inexhaustible. The capabilities of the soil for growing grain of superior excellence are universally admitted, and have been extolled at the expense of its proved capacity for growing food for cattle in great variety and abundance.

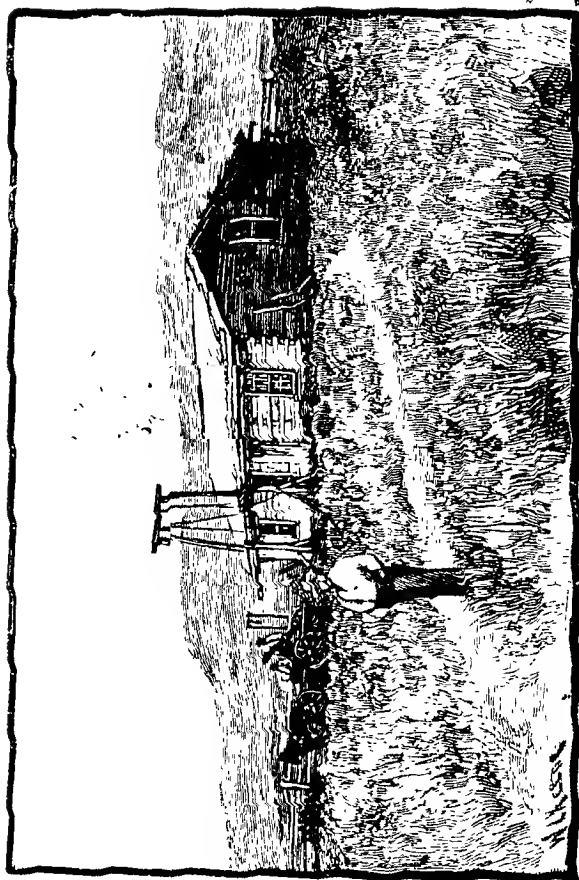
It is now pretty generally admitted that the methods of farming hitherto practised in the province are radically faulty; that wheat-growing year after year is practically drawing a cheque upon the future which is certain to be dishonoured in the long run. The inducements to this practice are unhappily as plausible as, in too many cases, they are compulsory. For the most part the settlers are men of extremely limited resources, living from hand to mouth, and many of them destitute of the most rudimentary knowledge of the science of agriculture. Not a few have gone straight from the desk, the shop, or the practice of one of the liberal professions, to follow a calling which it is erroneously supposed requires no training, no technical knowledge, and little intelligence. A year or two since, the heir to an English earldom had to be sought for amongst the farmers of Manitoba, and it is likely enough that he was less fitted for agricultural pursuits than to adorn the ranks of those who toil not, neither do they spin.



Many amusing stories are told of the crass ignorance of young Englishmen who have gone out in the confident belief that "any man can farm." The following I know to be authentic. A man who had probably never before seen, much less handled, an agricultural implement, on being told—in Canadian phrase—to "hitch his oxen to the plough," backed one of them *into its shafts*, and was then at a loss to know what to do with the other. Another—like the former an English gentleman—actually ploughed for an hour without a plough-share ! The event was held to be worthy of commemoration. He was invited to a convivial entertainment, and, all unconscious of his merits—or demerits—was well pleased with the derisive flatteries bestowed upon him, until the final act of decorating him as the champion ploughman of Manitoba made him unpleasantly conscious of his ludicrous position. But ignorance is no monopoly of the English emigrant. The laugh is sometimes the other way. With charming simplicity a Canadian one day expressed to my son his surprise that so many Englishmen emigrated to Manitoba. "Why," he asked, "don't they remain at home *and take up homesteads near London ?*"

Much commiseration has been recently expressed in certain quarters for the lot of the young English emigrant in Manitoba ; and the depressing dis-





A FACTORY ON SHANTY

comforts of a bachelor's shanty have been very vividly, if not quite accurately, portrayed. Lady Aberdeen, in her well-known letter to Mr. Stead, has had the shrewdness to lay her finger on this particular dark spot of prairie life. A shanty built of rough logs, dovetailed at the corners, their crevices filled inside and out with a substitute for mortar—which has a provoking propensity to fall out and leave more ventilation in roof and wall than is absolutely necessary—with its one room for living and sleeping, its nail-kegs as a substitute for chairs, and an emigrant's chest serving for a table; with its small windows and door innocent of latch or handle, and which if intended for ornament was a sad blunder, if for use, a deplorable failure—such a shanty, in which, if it have an upper chamber, those who occupy it may have to climb like a spider to their bedrooms, is not an æsthetic structure, and may be depressing enough to the man who views it otherwise than as a means to an end. And, although it might be difficult to find the shanty combining all these discomforts, the bachelor undoubtedly has a hard time of it. The tedious preparation needed in cooking, and the various domestic offices he has to discharge, are not only uncongenial, but he has not time for their performance. His food is badly cooked; he eats it without relish, and perhaps suffers from

dyspepsia. But even the forlorn bachelor may by very moderate but systematic industry add much to the attractiveness and comfort of his shanty home. It costs little expenditure of time or labour to plant a few vines around his dwelling; or to secure patches of beautiful colour in a flower garden—however inartistically laid out. A geranium or a creeper in his window, and bouquets of cut flowers from the prairie lighting up the dark corners of his shanty, have a wonderfully soothing and elevating effect. A quarter of an acre sown with peas and beans will yield an enormous crop of the most wholesome, nourishing, and agreeable food; and an equal area planted with potatoes will supply him throughout the winter. The wild shrubs, such as raspberries, currants, and gooseberries, which grow in abundance in many of the bluffs, may be successfully cultivated with a minimum of labour where nothing else will grow—in fact in any spot that is free from grass, and their delicious fruit requires no cooking. Raspberries, especially, are beautiful to the eye, grateful to the palate, good for the stomach, whilst they will perfume the air where they are grown in any quantity. “A dish of freshly gathered red raspberries might be a feast for an angel,” writes a local journal, “and a basket full will make the sourest woman on earth smile.” It is needless to add a word in their praise.

This is no fancy sketch of life in a log shanty. It is what I have seen, lived amongst and enjoyed. If the beautiful and prolific saskatoon, which it is easy to transplant, were utilised as a hedge around garden plots, the ugliness of the shanty would be forgotten in the beauty of its surroundings, whilst the labour would be well repaid and a source of much pleasure. The same may be said of the hazelberry, whilst the cranberry surpasses both in the beauty of its foliage, the graceful proportions of the shrub, and its usefulness from the fact that its berries make the finest jelly of all the native wild fruits, and are in great demand in the towns.

The man whose ambition soars above the log shanty need not be long in realising it. He will be none the worse for having faced the imperious necessity of dispensing for a while with those accessories of taste and comfort which elevate humanity, and for having attained that victory over self which will be the enduring reward of a courageous struggle with physical nature, and a cheerful surrender to its unchanging laws. It is just ignorance of or contempt for those laws which produce those faulty methods of farming, from the consideration of which the spurious wail of the lonely bachelor has beguiled us.

Whilst ignorance and poverty are the ultimate causes of that continued and extensive wheat-

growing which in the end must prove exhaustive to the soil, there is something to be said in its favour in a new and fertile country. The remarkable capabilities of the soil for growing grain not only of superior excellence, but, at least in exceptional instances, of almost incredible quantity, is little calculated to encourage a proper system of crop rotation. A farmer at Nepawa, Man., reports his crop of wheat in 1891 at $49\frac{1}{2}$ bushels and of oats at 92 bushels per acre. Whilst the intelligent farmer will recognise that half these quantities represent a full average crop, he has convinced himself that with good seasons nothing will be as remunerative as wheat-growing, and the average man will take the risk. For several years he has been spared the invasion of grasshoppers and locusts, which at one time threatened to render wheat-growing the most hazardous of industries; and he entertains no fear of their return. Yet, as I saw last summer the large number of grasshoppers and observed their singular power, and the tenacity with which they adhered to the stem of the growing wheat, I could not but reflect upon the possible results of a combination of circumstances favouring the hatching of the millions of tiny larvæ with which the ground is covered every autumn. The larvæ which escape destruction by the frost and the birds are hatched in the spring, and reach the pupa

stage in about three months. The birds are now the saviours of the farmer; perhaps even the gopher—if his richly-stored granary shows signs of exhaustion—may for once perform a useful function in feeding upon the pupæ which, in the fourth month, pass into the perfect state. Formidable as they appear, however, old settlers familiar with their habits maintain that grasshoppers do no injury to the crops, whilst the locust, which, armed with powerful jaws, devours leaves and stalks, gnawing the wheat to its very roots, is now practically unknown in Manitoba.

So long as the farmer can raise paying crops he will confine himself to wheat, although it is the boast of the Manitobans that if this staple wholly failed, the province would still become both rich and prosperous. As things are—though in theory admitting the wisdom of a rotation of crops—the farmer maintains that root crops will not pay the cost of labour. But all seasons are not good; a summer drought or an August frost may ruin his wheat. So strong, however, are his conservative instincts, that if he admits the necessity of mixed farming, the rational fit will pass off, and, failing to realise that the true policy is to diversify before exhaustion of the soil takes place, he will sow wheat again the following spring. And this he does deliberately, and on principle. The cost of

labour, he holds, leaves him no alternative; a rotation of crops, as understood in England, would increase his difficulties, and complete the ruin which ambition had originated. He admits that the cost of ploughing, seeding, food for horses or oxen, of harvesting and threshing, with the wear and tear of implements, will ruin him if for several successive seasons his crop fails. This is as true as that if the skies were to fall all the larks would be killed; and he does not care to look beyond the possibility of a succession of inferior crops; and, indeed, if he did, there would be no farming at all.

It has been well observed that a good farmer is a public educator; and happily the number of such in Manitoba is increasing. He is fertile in resource, and the intellectual peer of his severest critics, and so able—as a Manitoban farmer recently said—to fight successfully those systems that absorb too much of his profits. A bright young boy once said he had a farm which was exempt from taxation, not subject to execution, and equal in value to any other of three times the area. ‘Where is your farm?’ he was asked. ‘Under my hat,’ he replied. And he was right.”

The educated farmer does not rely upon always raising wheat that will bring a good price at the elevator. The fact of his liability to have more or less of his grain damaged by summer frosts,

suggests the wisdom of finding some more profitable method of disposing of it than by converting it into inferior flour. The solution of the problem lies, he holds, not in a rotation of crops, but in "mixed farming;" in the raising of cattle and hogs; in greater attention to his dairy, his poultry-yard, and his garden. Even if the profits were not greater, they would be more certain and more evenly distributed over the year, the work more interesting, and the home comforts increased. A gentleman at Portage la Prairie writes, after last year's experience: "It is the best system; it keeps you in work and gives something to fall back on." Another, at Virden, says, "Any person of moderate means would be foolish to trust to grain-growing alone, for in case of failure he has nothing to fall back upon." A third, from the neighbourhood of Brandon, after detailing his experience in these mixed industries, adds, "It would have taken me a long time in Ontario to have gathered this much together on my capital. The difference with me between there and here is six good crops and one poor one in seven years in Manitoba, and one good crop and six poor ones in Ontario."

As I pen these lines a letter reaches me from an intelligent farmer in the same district, in which he says: "I am counting on earning a living for this year from my fowls, the cow, and the garden." If

he had added "and from my hogs," his confidence would not have been misplaced, since the frozen wheat which he sold at 30 cents a bushel might have been turned into pork with great profit. Nothing more anomalous can be conceived than the selling of low-graded wheat at a price hardly, if at all, beyond the cost of production, and buying back bacon at a high price because the farmer has not the hogs to feed it to. In 1887 the crops were bountiful, and the wheat-grower is too much inclined to base his calculations upon a condition of things the recurrence of which is most uncertain. The writer of the letter just quoted states that for seven years his average crop had been 29 bushels of wheat and 43 bushels of oats to the acre, and he adds, "I would say to new settlers, don't be discouraged, but put in all the crop you can the coming season. It may be a repetition of 1887, as the ground is better ploughed this fall than I have ever seen it before."

Whilst such sanguine forecasts generally involve disappointment where reliance is placed upon a single crop, there is no occasion for discouragement to the man who recognises that "mixed farming" is the condition of making good profits. Were it not for the British demand, it is questionable whether wheat could ever be a profitable crop. That demand is just half a bushel per head of the

population ; and whilst every country of the globe is a contributory, it is worthy of note that whereas Russia exported in 1887 only 7·51 per cent. of England's shortage, her share in 1890 had risen to 28·09 per cent. ; that of Germany from 2·90 to 5·18 ; whilst the supply from Canada fell from 6·67 to 3·42 per cent. The advance of Russia as a wheat exporting country has been very marked, and the conditions which have checked that advance during the past year are unlikely to be repeated. Equally noteworthy is the advance of British India, which twenty years ago contributed only a fraction of 1 per cent., but now supplies, on the average of the last three years, over 11 per cent. of the British demand. It is therefore extremely improbable that wheat will ever again, in time of peace, approach in value to the prices of former years, or that the present scarcity of supply will be long maintained.

The Canadian government, in the Statistical Year Book for 1889, wisely called attention to the fact that it would be well if the farmer "could be brought to understand this, and turn his attention from raising wheat to what he will find more profitable, viz., a good system of mixed farming." The general success of any cereal or vegetable crop is undoubted ; but the farmer, in placing all his dependence on any one, betrays a lack of practical

wisdom. Of all possible crops, wheat is the most sensitive to the many dangers of climate and season, whilst stock-raising is a certainty. The mere wheat-grower passes his days in feverish anxiety, as the elements seem to conspire to effect his ruin. A dry spring, a summer hailstorm, an August frost, or a wet harvest, are not rare phenomena, and in combination they will destroy his crop. Yet even these scourges exhibit the wonderful fertility of the soil. In July, 1890, a hailstorm of unusual severity created consternation in south-west Manitoba; many farmers, it was said, having everything in the shape of vegetation "lashed out of existence." A correspondent writes: "Did one visit these farms on the morning following the storm, and revisit them to-day (six weeks later), he would hardly believe his eyes. Then there was bare ground, not even a weed. But by the help of refreshing showers, warm weather, good soil, and strong, vigorous roots, a change has come over the scene, and now there are fields of waving grain, evenly and well headed out, only awaiting a few days of hot weather before the binder will be slashing the grain down. After the elements had done their damage, the crop of hundreds of acres was offered in Brandon to anybody who would buy for \$10. Now, it is needless to say, the values have slightly increased." But

serious as such a visitation undoubtedly is, it is too often forgotten that it is not peculiar to Manitoba. No hailstorm has ever been known in that province half so devastating as that which on the 13th of July, 1789, was a distinct factor in producing the French Revolution, "scattering into wild waste the fruits of the year; which had otherwise suffered grievously by drought;" and bringing ruin upon every cultivator of the soil, "for sixty leagues round Paris especially." It may, further, be confidently affirmed that severe hailstorms in the late spring are of more frequent occurrence in England than in Manitoba.

The settler whose resources do not admit of his following the wise advice of the government can, in almost every case, take the initial step in the direction of mixed farming by breeding swine. There can be no mistake in this industry in Manitoba. Canada now imports \$2,000,000 worth of hog products from the United States, and exports to England no more than \$400,000. Manitoba, as was said by the President at the last meeting of the Dairy Association, "should help to equalise that balance, instead of the reverse which is at present the case;" and the farmer who uses his frosted wheat in fattening pigs finds that, dollar for dollar invested, his hog pen returns a larger profit than any average wheat crop.

I am not theorising. It would be easy to multiply evidence of the profitableness of hog-raising in Manitoba. A farmer residing at Strathewan writes: "An ordinary Berkshire grade of pig, six weeks old, can be bought almost anywhere in Manitoba for \$2; commoner pigs in proportion. At six months old, if these pigs have been well fed, cleanly kept, and are fairly well bred, they should dress 140 lb. each. Now estimate the cost of this 140 lb. Pigs at six weeks old, weight 20 lb., costing \$2; four and a half months to make 120 lb. increase, will eat an average of $3\frac{1}{2}$ lb. of food for each pound gained, or 420 lb. in all, costing usually about 75 cents per 100 lb., or \$3.15; cost of killing and hauling to market, say 50 cents, or in all \$5.65. The average price of pork at that season of the year, viz., October, is 8 cents, which for 140 lb. would bring \$11.20, leaving the profit of \$5.55 (23/-), for each pig for the summer, which ought to satisfy even the most exacting for their labour and skim-milk." Where the pigs are bred instead of purchased, the profit is necessarily larger if judgment is shown in the choice of breed and in the art of feeding. For there is an art even in pig-feeding, known only to the initiated. Damaged wheat will make good bacon, and may be most profitably thus employed; whilst it releases for sale other produce—such as potatoes, which may have been grown as a mere

maintenance diet for the winter—a practice which Professor Shaw, of Guelph Agricultural College, has shown to be utterly wasteful. “In meat-making,” he says, “there is no place for a maintenance diet. The animals should be kept pushing ahead.” On this subject a Manitoban writes: “It is a most unfortunate situation for a farmer when he finds that he has cattle and hogs and no feed for them; and it is almost equally unprofitable, though not so distressing, when, as is the case this season, there is abundance of grain unfit for market and no animals to eat it.” The farmer who judiciously raises pork for his own consumption, and for the market, will never farm at a loss. In Manitoba all the conditions for this industry are favourable. The price of pork is seldom less than 50 per cent higher than that of beef, and the cost of labour in its production is more than recouped by the conversion of straw, which would otherwise be burnt to get it out of the way, into valuable manure.

As yet, the Manitoban farmer has not taken kindly to sheep-breeding; but wherever the experiment has been made it has proved highly remunerative. The opinion so frequently expressed by touts of American railway companies, that the severity of the winter in Manitoba rendered sheep-raising precarious, if not impossible, has been proved incorrect. A learned Professor of the

Académie des Sciences has recently given to the world the results of experiments by which he has shown that, of all living things, the rabbit is the most capable of withstanding a very low temperature, whilst sheep, goats, and hogs take good second, third, and fourth places. It is now forty years since sheep were first introduced to the Red River, and no case of disease has ever been known. The wool is of fine quality, wethers producing fleeces of 6 lb. to 8 lb., and ewes of 3 lb. and upwards, according to the breed.

Mr. Thomas Spence, clerk to the Legislative Assembly of Manitoba, writes: "The experience of many years shows that no physical impediment arising from climate or soil exists to prevent the prairies of our North-West becoming one of the best grazing countries in the world. . . . For raising cattle and horses this country is equal to Illinois, and for sheep-raising it is far superior. The quality of the beef and mutton raised upon our northern grasses has been pronounced of superior excellence. Among the peculiar advantages of Manitoba for stock-raising and wool-growing, the most prominent are—1. The richness and luxuriance of the native grasses: the grass is mainly cut on the swamps and meadows which chequer the prairie, or fringe the streams and lakes. 2. The great extent of unoccupied land affording, for many years

to come, a wide range of free pasturage. 3. The remarkable dryness and healthfulness of the winter. The cold air sharpens the appetite, and promotes a rapid secretion of fat and a vigorous muscular development. All these point to stock-raising as one of the most important, and promising, and diversified channels into which the industry of the immigrant and capitalist is to be directed."

Similar testimony is borne by farmers in the colder state of Dakota; where only those who have adopted "mixed farming" have been in any degree prosperous. One of these practical men writes to the *Nor' West Farmer*: "This climate is specially adapted for sheep. Since I came here I have been urging some of the large farmers to go in for sheep. Although Scotchmen, they seem slow to take the hint. However, some of the small farmers, who have nothing to fall back upon in a bad year, are beginning to find out there is a profit in sheep in a good or bad year, but as most of them have had no experience they are starting with any scrubs they can get hold of, and they are not particular about the rams they use." Sheep, he says, are like Scotchmen—they soon get acclimatised. The great thing to be desired is not only to get people awakened to the value of sheep in a system of mixed farming, but to convince them that only such breeds should be tried as have been shown by

experience to be best suited to the country, and that proper care must be bestowed upon them by men familiarised to their treatment all the year round. One great obstacle to success at first, continues this gentleman, "was the lack of root crops to supply the place of the turnips which formed so large a part of their winter food in England. American farmers have never been partial to root crops. Yet the English breeds of sheep cannot do well on dry grain and forage in winter without some kind of succulent food." As we shall see in the next chapter, this want is now supplied by the silo, and, where root crops cannot be grown, succulent material in great abundance may be obtained at a small expenditure of labour..

Sheep and hogs are not only specially adapted to a cold climate, but in Manitoba both have been proved by experience to be profitable, producing the very best returns in wool and meat. Sheep-raising has the further advantage of necessitating to some extent a rotation of crops; whilst it enriches the soil, it also encourages the farmer to get a crop of rape or turnips out of land which would otherwise lie fallow. A well-known gentleman in South-Western Manitoba informed me that he had found this industry highly profitable. In the late autumn of 1890 he fed 700 sheep and many head of cattle for over a

month on 40 acres of rape. The cost of seed was 30 cents per acre, or 48s. for the 40 acres, and the crop was almost clear profit. The sheep were brought out fat for the winter, and the land put in prime condition for the following year's wheat crop. One of the great advantages of putting sheep on land is that it brings it into that compact condition so favourable to the growth, and to the harvesting of grain. A farmer near Wawanesa, Man., two years since, summer fallowed a considerable breadth of land, and as the weeds grew up he kept his flock of sheep on it, which, besides keeping the weeds down, put the land into that compact condition which is necessary for a good wheat stand: "When harvest time came round, and the binder was sinking in wet mud on ordinary land, it went over the trampled soil with perfect ease." Another advantage of sheep-rearing is that, whilst the rich prairie grasses afford good pasture for at least half the year, the animals may be fed and fattened in the field on crops, which, instead of impoverishing the land, are "sown as food for others." The land is doubly enriched; it is most effectually cleaned; and the wasteful system of fallowing, rendered necessary by repeated cropping with wheat, is superseded. In the *Bulletin* issued by the Department of Agriculture, for December, 1892, it is said: "From reliable information obtained by

this Department, there can be no doubt that this class of stock is one of the most profitable."

The principle of a rotation of crops, at which Canadian farmers shake their heads, regarding it as the Englishman's fad, is as old as the practice of agriculture. In Manitoba it is even of greater importance than manuring the soil. Many competent judges object to manure. I have frequently heard it affirmed that the one result of its use is an enormous development of the growth of weeds, and that the soil is so rich in nitrates that it may be cropped for twenty years without resort to fertilisers. Others, however, are so convinced that land is already deteriorating, and must deteriorate, however rich and productive, by the continued growth of one plant without manuring, that their experiments in mixed farming have been undertaken for the sole purpose of converting straw into manure, and thus returning to the land as much as possible of what has been taken out of it. Naturally, these are the men who also favour a rotation of crops.

Pliny understood that a crop which exhausts the soil should be followed by one which enriches it. "If the farmer's soil be exhausted," he says, "let him, in that case, help himself thus: let him sow next year's crop on the field where he has just gathered his beans, vetches, or lupines, or such other crop as enriches the ground; for indeed it is

worth notice that some crops are sown for no other purpose but as food for others." A rotation of crops upon average soil, with the best farmyard manure, has been found by those who have tried it to tell in a very marked degree in increased annual produce. It is to be hoped that the excellent results attained at the Brandon Experimental Farm will even lead to an extensive cultivation of turnips. "Seven varieties of swedes," says Mr. Bedford, "and ten varieties of white and yellow turnips were tested during the past season. The best of the swedes gave over 1,500 bushels per acre, and the white stone yielded 1,300 bushels. Mangold wurtzel gave 825, and field carrots 381 bushels. It will be seen by these yields that roots can be successfully grown here." Nor have farmers been slow to note the fact, the area planted with roots in 1892 being nearly double that of the preceding year. The official figures are, for 1891, 9,301 acres, for 1892, 17,498, or an increase of 8,197 acres.

It is the thrifty Scotchman who is beginning to find out that he may exhaust the fertility of the soil, the restoration of which will be too costly, if not altogether impossible; that a rotation of crops pays in the long run, and especially as favouring the remunerative industries of hog, sheep, and cattle-raising. One of these, sent out three years since by the Commercial Colonisation Company,

writes: "I had a total of 19 acres of wheat, viz., 7 acres cropped on breaking, 7 acres on stubble, and 5 acres *on turnip and potato land*. I threshed out 600 bushels of wheat, giving an average yield of 20 bushels per acre on the breaking, $31\frac{1}{2}$ bushels on the stubble, and 48 *bushels per acre on the turnip and potato land*." The yield of turnips, sown broadcast, he estimates at 20 tons per acre, and of potatoes over 600 bushels per acre; and this from land which if it had not been so cropped would have lain fallow. The potato crop, it will be observed, is only an estimate, and probably a sanguine one. It is, however, confirmed by a gentleman at Springfield, Man., who raised last year 1,000 bushels from two acres. But if the actual yield was half the estimate, the profit would greatly exceed that of the heaviest wheat crop. Potatoes sold for seed in the spring will bring \$1 a bushel; but taking the lowest average of 30 cents a bushel, the yield would be \$90 an acre, equivalent in value to 90 bushels of wheat at \$1 per bushel!

This of course presupposes careful handling, and manuring of the soil. Potatoes that are simply ploughed into soil already exhausted may be a very good preparation for the following year's wheat crop, and if the yield is only one-tenth of the above, or one-twentieth of this Scotch farmer's estimate, it will be more remunerative than wheat in any

average year, whilst instead of exhausting, it will cleanse and enrich the land. The growth of these tubers, as also of turnips, is frequently quite phenomenal. One pound of potatoes, cut to single eyes, produced last year $86\frac{1}{4}$ lb., and had they been cut with two or more eyes the yield would have been greater. At the Virden Agricultural Show I have seen turnips weighing 27 lb., which, I was told, would have added several pounds to their weight had they been left in the ground a month longer; whilst potatoes weighing $2\frac{1}{4}$ lb., and of unsurpassed quality, were also exhibited. Turnips measuring 36 inches in circumference; mangold wurtzel weighing 27 lb., beets 23 lb., and cabbages 49 lb. each, with carrots 3 inches in diameter, and radishes 2 feet in length are reported from many localities. Crops of 300 to 700 bushels of potatoes, and of 400 to 1,000 bushels of turnips to the acre, are reported by many of the "100 farmers" to whom circulars were addressed last year by the Department of Agriculture, asking for information drawn from personal experience in farming, and which in every case are attested by the name and address of the correspondent. Published under the authority of the Department, these reports may be regarded as authentic, whilst they justify the comments of their authors—"Manitoba is a good place for farmers with little money," and "I do not think

that this country can be beaten, as it is good for all kinds of farming."

Contrasting such results with those obtained in the United States, we can understand the Manitoban farmer's satisfaction with his position and prospects, which so much impressed the English delegate farmers who visited the province in the summer of 1890. Nebraska reports 27 bushels of potatoes to the acre, Kansas 28, Illinois 30, Indiana 37, the Dakotas 45, Ohio 46, and Iowa 48 bushels. "It is impossible," writes Mr. J. T. Wood, one of the English delegates, "to imagine a people more sanguine of their success, and the future of their country than are the Manitobans. All interviewed, of whatever nationality, were unanimous in declaring their preference for Manitoba over Quebec, Ontario, England, Ireland, Scotland, Germany, or whatever country they happened to hail from, and were equally emphatic in their disinclination to return, except to visit friends and relatives; whilst they are robust, independent, and happy." And the secret of their contentment lies in the fact that, by intelligent observation, they have discovered how varied are the means of amelioration which man is capable of opposing to the disadvantage of climate, and that these may be completely neutralised by a more scientific system of agriculture.

CHAPTER V.

FOR stock-raising on a large scale Manitoba is not everywhere adapted, owing to the scarcity of water, and the large area of unfenced arable land. But where a sufficient supply of water exists, a few head of cattle are a great help to the farmer in mixing his industries. This is the foundation of durable success. In almost every instance where complaints of early frosts have been made, they will be found to emanate from men who have extended their acreage of wheat beyond their power of handling it. Under the hot August sun it ripens so rapidly that before half the crop is cut the other half is either caught by a snap of frost, or shells out from over-ripeness. The testimony of the "100 farmers" referred to in the last chapter, is uniformly in favour of extending the live-stock branches of the farms of Manitoba. By no other means can its farmers protect themselves from the disappointments and disasters which are sometimes incident to exclusive wheat-growing.

The subject is of so much importance that I

transcribe a few of the 100 answers to the question, What is your opinion of mixed farming, *i.e.*, stock-raising and grain growing combined? "The only successful way." "Makes success sure." "Stock-raising and grain growing certainly ought to go together." "Only way to continued prosperity." "The true way." "Every farmer in Manitoba should follow it." "I could not farm in any other way." "Absolutely necessary." "Works especially well on a small farm," and so on. These are the conclusions arrived at, in some cases unwillingly, by practical men, whose experience has taught them how gradually and constantly to increase the sources of revenue which agriculture can yield. Cattle thrive and grow fat on the native grasses; and the profusion with which roots grow—as also barley and rape—minimise the cost of carrying them through the winter, and are calculated to encourage increased attention to stock raising. In an average season any quantity of hay may be cut in the sloughs or swamps; and by feeding silage, as an eminent authority said the other day at Portage la Prairie, farmers "could turn out a lot of choice manure, which could be used to grow more corn, and after such a crop they would always have the finest yields of wheat, and pave the way to a proper system of crop rotation—a *positive necessity if they were to farm here successfully.*"

In a country where fields are unfenced, and where the area of open prairie becomes more circumscribed every year, the herding of cattle is now imperative, and may be done at very small cost, as one boy can well take charge of the cattle of several farmers. Unfortunately the Dominion and Provincial Herd Laws, though both designed to protect the farmer against the incursions of cattle, are not in full agreement. No honest man will allow his cattle, be they many or few, to injure his neighbour's crops. But all men are not honest. Here and there one may be found who, presuming upon the ambiguity of the law, or upon the easy urbanity of his neighbour, who he knows will shrink from resorting—as every native Canadian very properly does—to his legal protection by impounding the cattle, will turn them loose upon the prairie in sight of his wheat fields, to which by natural instinct they forthwith trend. I have known one such coolly declare that, so long as his beasts got a good feed, he was indifferent whether it was upon the prairie or upon his neighbour's corn field. Another, with charming simplicity, told me that he took care to keep his cattle from straying upon the fields of a Canadian farmer "because they always pounded them." Remonstrance, threats, or even the pounding of trespassing cattle, which may at length be forced upon the reluctant farmer, have no effect upon such a

man. He coolly assumes that the "invidious" act will not be repeated ; and if it were, the fines which the pound-master can inflict are a small price to pay for the privilege of habitually running his cattle upon a rich corn field. It is nothing to him that they trample down and destroy ten times as much as they eat. But such men are rare. They are not Canadians, nor Scotchmen, nor the humbler class of English settlers—but "gentlemen's sons," some of whom are the bane of the country. There are many honourable exceptions, and a few black sheep are found in every flock. But, as a class, these men appear so destitute of all moral sense as almost to justify the language—too strong for exact quotation—in which a patriarchal Canadian denounced them in my hearing. "Except—— —," he said, "there ain't a —— worn-out Englishman in Manitoba . . . that mayn't go to the devil." I do not subscribe to that sentiment. On the contrary, there are gentlemen of the class referred to for whom I have the highest regard ; but such would agree with me that, as a whole, the class who are sometimes contemptuously spoken of as "remittance farmers" afford an illustration of what Mr. Herbert Spencer calls "the imperfect adaptation of an organism to its environment," men whose function in life would seem to be the replenishing of the world's stock of rascals, and the doing their best to save it from dying out.

On the boundless prairie there is no difficulty and a minimum of expense in herding cattle ; and the farmer who pays attention to stock-raising on a moderate scale finds it a paying industry. There is no cattle disease in Manitoba. The importation, in recent years, of pedigree animals has greatly improved the breed ; and in the great development of the Canadian cattle export trade Manitoba is now able to secure its share. The rapid increase of this business, and its profitable character, when the cattle are of good quality, is shown in the fact that, whilst in 1874 Canada exported only 39,600 beasts, of which no more than 455 came to Great Britain, in 1891 the number shipped to British ports was 107,524, valued at £1,771,000 sterling. The *Canadian Gazette*, reporting the arrival in Liverpool a year ago of 500 head of cattle from the Canadian North-West, of which experts had said that when they started on their long journey they must have been equal to the best Scots, observed : " The steers now arrived are of exceptionally fine quality ; indeed, it is admitted by Americans and other importers that the quality has never been equalled by the cattle from any of the other ranches in the United States or Canada. This opinion is borne out by their being immediately snapped up at the highest market prices. The venture must have proved a profitable one, and we are informed that

next year, and each succeeding year, the quality will improve still further." Experience has shown the correctness of this forecast. The Canadian farmer has learned that while all sorts and conditions of beasts will find a market over the border, it is only first-class animals, specially fed, that will meet the English demand. A noteworthy illustration is afforded by the fact that whilst the number of Canadian live beasts imported into this country in 1890 was 21,000 less than in 1889, the smaller number realised \$1,250,000 more than the larger.

Important and profitable as is this industry, there is every reason to believe that in the near future dairy farming will take the first place in the agricultural interests of Manitoba. Recognising the wisdom of encouraging this industry, the Dominion Government two years since appointed a Dairy Commissioner, whose functions are to give farmers practical lessons in butter and cheese making. The experiment has already proved highly successful, and the McKinley Tariff Act which has practically closed the American markets to the Canadian farmers has had the effect of inducing them to make a resolute effort to recover their lost hold of the richer market of Great Britain.

Whilst we annually pay £4,000,000 to France alone for dairy products, and a further £15,000,000 to other countries, our importation of Canadian

butter has, within five years, decreased as much as 85 per cent. To some extent this may be due to the absorption of the new milk by the numerous cheese factories of Canada; but it is chiefly attributable to the inferior quality of the article supplied to the English market. The Canadian farmer has been slow in learning that an article which might pass muster in the lumber camp would not suit the more fastidious tastes of a people whose Free Trade policy has brought to their doors the most perfect products of every clime and country. The effect is strikingly shown in the Canadian exports of cheese and butter to the English market. Whilst the former has more than doubled within a decade, and increased from \$2,000,000 in 1872, to \$9,372,000 in 1890; the latter has fallen from \$3,500,000 in 1872, to \$340,000 in 1890. If we take a wider range, the results are the more surprising. In 1867 the export of Canadian cheese was 1,577,000 lb. In 1890 it was 94,200,000 lb. On the other hand, the total exportation of butter, which in 1874 was over 12,000,000 lb., had fallen in 1890 to 1,951,000 lb.; whilst the *importation* of butter from the United States, which in 1888 was valued at \$62,000 advanced to \$143,000 worth in 1889, or 190 per cent.! In 1890 the value was reduced to \$61,000, probably owing to the operation of the McKinley Tariff Act. It is probable that

the whole of this butter was re-exported, the middleman buying from the United States instead of from the Manitoban farmers who are well able to supply him.

There is no reason why first-class butter, as well as cheese, should not be produced all over Canada; and with the example of what has been accomplished in a little country like Denmark, with less than half her population, and none of her rich prairies, the Canadian farmers have been stimulated to rivalry. Six years ago Danish butter was almost unsaleable in the English market, which last year absorbed over \$18,000,000 worth. In 1883 Denmark exported 19,000,000 lb. weight; in 1886, 26,000,000; and in 1890, 60,000,000; whilst agencies for the sale of Danish dairy products are now established in every important town in England.

It will be seen at once how encouraging is the prospect of a vast and rapid development of an industry, not only very profitable in itself, but which cannot be conducted without lending added value to the land. The man who contemplates emigration to Manitoba could go through no better course of preparation than by making himself thoroughly conversant with the latest and most approved methods of butter-making. The broad lines along which dairy farming in Manitoba is susceptible of

improvement were thus indicated by Dairy Commissioner Robertson at the Dairy Convention at Ottawa :—

“The popular conception is, that dairy farming is concerned mainly in the production of milk or the handling of its products. I think that skilful dairy farming is an occupation having wider range than that. Dairy farming should certainly concern itself with having the soil in such a state of fertility that the dairyman will obtain plentifully and profitably the raw material out of which he has to obtain milk, butter, cheese, beef, and other animal products of concentrated quality and value. . . . In the production of food, dairy farming enables every man, who follows it skilfully and with good judgment, to get more food from the same number of acres than he could obtain otherwise. There is no occupation, except that of market gardening, that will provide so much food of the best quality from a small area as dairy farming. . . .

“Then we are enabled by dairy farming to protect the soil. A good deal of our farming has been after a prodigal fashion. We have been wasting our substance in riotous farming, if not riotous living. We have been recklessly shipping off to England and the States, substance that we should have kept ourselves, and we have been getting no

fair value back. If we would save the fertility of our land, we would give the substances removed from the soil in farm products all the value they can carry, and dispose of them only that way. Dairy farming, while providing large supplies of food, will protect our soil and keep it rich."

Progress and adaptation are principles at work to-day in Canada as never before ; and recent fiscal legislation in the United States indicates the lines along which successful competition for the British market may be developed. Apprehensions of over-production, which have hindered many farmers from embarking in the dairy industry, will lose their terrors, as both increased demand and better prices encourage enterprise. It is now recognised that, with an increase of 50 per cent. on the export duty to the United States, there is no market at home or abroad for butter of inferior grades ; whilst the wholesale men will generally give fifteen to twenty cents per pound for a first-class article. The butter sent to Winnipeg last fall from Dr. Barnardo's farm at Russell, where great pains are taken in its manufacture, realised twenty-five cents a pound, two-thirds of which was clear profit.

A Manitoban Dairy Association has recently been formed for the advancement of dairy science, the promotion of economy of labour, and the use of

the most approved methods of production. From this excellent results may be confidently expected ; for there can be no doubt that home dairy workers have as much to unlearn as to learn, before they can hope to rival the products arising from the application of scientific processes and highly skilled labour. Something more than the mechanical process of butter-making is required to be known ; but there is no reason why farmers' wives should not turn out as good butter as any creamery. To my knowledge this is done ; but it requires patience, thought, and skill which all have not at command. In settled districts, where the new milk can be easily collected, the creamery plan of butter-making seems preferable, as both labour is economised and far better results are secured by the use of appliances which the individual farmer cannot command ; though from want of adequate capital this plan has not always proved successful. The announcement, therefore, that the Government is about to plant a public creamery and cheese factory in each province, is good news for the farmer, since the milk will presumably be collected by the establishments, thus saving a good deal of unprofitable labour. The farms in Manitoba are too wide apart to allow of the new milk being sent to the creameries by the farmer's team, even where good prices are guaranteed. An excellent creamery at

Shoal Lake, making 500 lb. of butter a day, and giving its patrons 16 cents per lb. for their share, suspended operations a year or two since simply owing to the difficulty of collection.

In the present state of Manitoba, and owing to the shortness of the butter season, a creamery is too risky a business for private enterprise, unless a very large capital is embarked in it. But co-operative dairying is profitable, and is making steady progress. A reliable authority has declared that failure and loss are the inevitable result without the guarantee of two hundred and fifty cows. And where this can be secured, further co-operation on the part of the creameries becomes necessary, to ensure the regular and rapid transit of the butter to the foreign market; as neither the railway companies nor shippers care to accept every small consignment that may be offered to them, when the expense involved in providing cool chambers is as great as for ten times the quantity. It is this consideration which lends importance to the proposed action of the Government. Whilst the equipment of their creameries will be a guarantee to the farmer of greater profits than can be made in home dairying, their contracts with the railway companies will ensure that regularity in shipment, the absence of which has been a cause of disappointment and loss.

A proprietor of private creameries in Manitoba has shown what may be done where a good supply of milk can be relied upon. The results of his work are of so interesting a character, as confirming the claim, advanced for Manitoba, that the milk there raised will make more butter and cheese than can be produced, under the same conditions, in any other part of the world, that I offer no apology for a rather long quotation from the *Nor' West Farmer*:—

“When such a sweeping assertion is made it is only proper that the interested inquirer should have the fullest proof that this claim is based on a perfectly fair and accurate reading of facts sufficiently numerous and so common that no question of its correctness can reasonably be raised. The experience of Mr. Barre, in his last year's operations at the Joly creamery, Manitoba, gives the latest and plainest specimen of evidence in favour of Manitoba as a dairy country that cannot well be called in question by any reasonable investigator. . . . The cows of the district are all native, with scarcely even a male brought in from the outside world, and their production for the season, by the use of a Danish Western separator, was as follows:—

	May 12th to 31st.	June.	July.	Aug.	Sept.	Oct. 1st to 15th.
Pounds of milk received	88,982	257,203	212,784	198,859	144,273	42,001
Pounds of butter made	3,599	11,098	10,004	8,919	8,032	2,430
Pounds of milk to a pound of butter...	24.72	23.17	21.19	20.25	17.96	17.28
Total pounds of milk received ...	944,102.					
Total pounds of butter made ...	44,974.					
Season's average of milk to a pound of butter	20.99 lb.					
Pounds of butter for every 100 lb. milk	4.76					

Mr. Barre explains that, in accordance with the principles already laid down, he finds the quality of this year's spring milk was below that of other

years in which the cows came through the winter in better condition. The cows lay out in the cold wet nights of the late harvest and fall season, thus lowering both yield and quality. He believes, by more generous treatment in fall and winter, and better housing, the butter season could be profitably extended to close upon seven months. Contrasting the season's average of Manitoba as indicated by the year's intake of this factory, gives this result in pounds of butter to each 100 lb. of milk:—

Manitoba	...	...	...	...	4'76
Quebec...	...	...	...	...	4'25
United States...	...	...	...	...	4'00
Ontario...	...	...	...	...	3'75
All Europe	...	...	...	...	3'50

On an average for the whole season Mr. Barre paid his 200 patrons from 55 to 68 cents (2s. 3d. to 2s. 10d.) for 100 lb. of milk. The yield of $4\frac{3}{4}$ lb. of first-class butter per 100 lb. of milk was far above what the average farmer could obtain in home butter-making; and, speaking from a large experience, Mr. Barre expresses his conviction that a market for a much larger quantity of creamery butter than Manitoba has yet been able to produce depends only upon maintaining the quality. Milk that has been proved to contain more butter and cheese than that produced in any other country in the world should make the

dairy industry one of the most important resources of Manitoba. It is not upon the experience of an individual creamery proprietor that the championship of the province rests. At the Dominion Exhibition at Toronto, in 1887, the butter of Manitoba took the first prize, in competition with all Canada, equally to the surprise and chagrin of some of the professional dairymen of the Eastern provinces.

The remarkable falling off in the export of Canadian butter, referred to above, is due entirely to carelessness and the absence of cleanliness in its manufacture. Before it can become the staple industry of the colony, a certain prejudice in the minds of English dealers has undoubtedly to be removed, and it must yield to the force of facts. The allegation that Manitoban butter, after travelling 4,000 miles, cannot be fresh and wholesome is disproved by the considerable amount of excellent New Zealand butter which meets a ready market in London. What is wanted to enable the butter of Manitoba to rank with her wheat, commanding the highest prices in the English market, is skilled work, or, in other words, the substitution of the creamery for the home butter-making process, with skilful packing and expeditious shipment, under conditions which only a large extension of the co-operative principle can ensure.

The development of trade relations between Canada and the mother country must be a certain result of recent American legislation, and the one seems likely soon to be regarded as an adjacent farm of the other, with British Columbia as the Western boundary of Great Britain. The efforts which Canada has already made to transfer to English markets the trade in poultry, eggs, and dairy products, formerly carried on with the United States, have proved most encouraging. Of this we have recently had a remarkable illustration in the arrival at Liverpool alone, during the last fortnight of 1892, of 30,000 Canadian turkeys, weighing 100 tons. It is to England that Canada must look for the only reliable market for her produce, whatever may be her future trade relations with the United States. In their own interests, as well as from sentiments of loyalty and international justice, the producers of the North-West would themselves meet the McKinley Tariff Act with a bold and rational policy of complete Free Trade with the mother country. As the elections of last year showed, even the Eastern provinces are awaking to an intelligent recognition of the true fiscal interests of the country ; and in the warnings which those elections gave to the Government it was Canada's loss—now happily retrieved—that the fortunes of

war resulted in the actual defeat of the most liberal, patriotic, and far-sighted member of the late Government—the Hon. Mr. Carling. Not a few even of those who were most influenced by the strong personality of the late Premier, who were one with the “Free Traders in heartily recognising his many good qualities, are equally agreed with them in demanding the demolition of the old tariff walls by which international trade is so disastrously handicapped.

The system of agriculture generally pursued in Manitoba is less scientific than that which has been the growth of centuries in Great Britain. It is, however, steadily improving, and when it is remembered that barely two hundred years have passed since it was the practice in Scotland to plough and harrow with rude implements tied to the horses’ tails, it is not surprising that native Canadians should be somewhat impatient of British criticism. Since the establishment of the Experimental Farms—due entirely to the Hon. Mr. Carling—attention has been given to the application of science to agricultural pursuits, with valuable results to the farming community. The objects for which these farms were established are, *inter alia* ;—

To conduct researches and verify experiments designed to test the relative value, for all purposes,

of different breeds of stock, and their adaptability to the varying climatic or other conditions which prevail in the several provinces and in the North-West Territories.

To examine into scientific and economic questions involved in the production of butter and cheese.

To test the merits, hardiness, and adaptability of new or untried varieties of wheat and other cereals, and of field-crops, grasses and forage-plants, fruits, vegetables, plants and trees, and disseminate among persons engaged in farming, gardening, or fruit-growing, samples of such surplus products as are considered to be specially worthy of introduction.

To analyse fertilisers, and to test their comparative value ; to conduct experiments in the planting of trees ; and in ascertaining the vitality and purity of agricultural seeds.

The success of these institutions in the development of a science of agriculture has already been fully established. For obvious reasons we must here confine our attention to the Experimental Farm at Brandon. It was not at the time of my visit in full operation ; but under the intelligent and capable management of Mr. Bedford numerous experiments, generally attended with satisfactory results, have been made, and object lessons in

every department of agriculture, provided for those who are willing or able to profit by them. The farm covers 640 acres, and is situated upon the Assiniboine river, a mile north of Brandon. The site was chosen as securing a rare combination of soils, and also of both elevated and low lands, supposed to represent the different grain-growing districts of Manitoba, and is thus adapted for testing the suitability of various products to differing localities.

The Experimental Farm at Ottawa is no doubt equally full of instruction, or more so, from the fact of its being the headquarters of the Dairy Commissioner, the Chemist, the Entomologist, and the Horticulturist who preside over their several departments. But, it has been truly said, the unique advantage of the Brandon farm "is that those who can only see it once in a season, or it may be those who never see it at all, can learn from its published reports the exact value, *at the close of the season*, of every product that they saw or heard of at some earlier stage of its growth." By this timely publication of the substance of experiments made with cereals, roots, grasses, tree-planting, &c., the farmer becomes possessed of the results for his practical guidance a whole season before the revised reports of kindred institutions reach his hands, after punctilious regard to the red-tapeism which requires

that they should be first submitted to parliament.

To the Reports of the Brandon Experimental Farm, I shall have frequent occasion to refer. It may be here observed, however, that the enterprising Director, realising the immense importance to the stock-raising interests of Manitoba of the production of good fodder, has devoted special attention to experiments in fodder-corns and grasses; with the interesting result, as I gathered, that he prefers the natural wild grasses of the country to all foreign importations. Mr. Bedford recently stated in public that, soon after getting possession of the farm, his attention was given to the native grasses of the province; that in 1889 a small quantity of seed from several varieties was collected and sown, and that despite the prolonged drought of that year many grew and survived the following severe winter. After two summers and one winter their condition was quite promising. It is, indeed, questioned by some whether wild grasses, as long as they remain wild, are of much value, except for ensilage. But horses prefer them to cultivated varieties; whilst cattle and sheep, fed throughout the year almost solely upon the native grasses, are said by experts to do remarkably well, coming out in the spring, if properly cared for, strong and in good flesh. However this

may be, much of the natural harshness of the wild grasses disappears under cultivation; the leaves and stems become more succulent; and the plants, thus modified by culture, promise to yield new varieties of great value as forage crops. The wild grasses which, on the Brandon farm, have given the best promise of producing a reasonably fixed cultivated race, are *Muhlenborgia Sylvestica* and *Poa Scrobiniana*, "both of which show possibilities for a full yield and good fodder when under cultivation," and are quite as rich and nutritious grazed in the winter as in the summer.

Of the sixty varieties of grasses and clover which have been tested, I understood Mr. Bedford to say that the Hungarian forage plant made the best growth in 1890, yielding four tons to the acre; whilst Kentucky blue grass, after lying dormant for twelve months—probably owing to the exceptional dryness of the summer of 1889—produced a luxuriant growth of herbage. Kentucky blue is, however, inferior as a hay cropper to a common wild rye-grass, of which much is expected. It is chiefly valuable as a pasture grass. "No one," says Mr. Bedford, "should sow blue grass, unless they meant it to stay on for years, and, if it was put in with other sorts that made a bigger immediate yield, such as Timothy, it would take hold under the others and gradually shove them

all out. It is only a pasture grass—no good as a hay cropper ; but it is bright and green in the fall when every other sort of grass is brown and dead."

Mr. Bedford has also formed a high opinion of Lucerne clover, of which I am informed that, in France, twelve successive yearly crops are reaped from one sowing.

At present the most favoured of the cultivated grasses, with the average farmer, appears to be Timothy—a grass which was well known in England in the last century. It has much the appearance of rye, having a broad blade or leaf, and grows luxuriantly in suitable localities. A native of Virginia, some seeds were carried into North Carolina about 1750, by a Mr. Timothy Harrison, whence its name. In an old book, published in Manchester in 1764, I find it very highly commended, and the writer records an experiment made with a view of testing its sweetness. A large field was divided into four equal areas and sown with clover and other grasses. "When they were all arrived at a proper growth, horses, black cattle, cows, and sheep were promiscuously turned into the field, . . . it not being at all imagined that they would all prefer one kind. However, this was the case, for the Timothy grass was eaten by them quite bare before the other roots were touched."

Although with the great majority of Manitoban farmers it is still possible to obtain all the hay they require from the "sloughs" on the prairie, in the more settled districts the cultivation of grass is a problem of great interest and importance. The experiments conducted by Mr. Bedford afford abundant evidence that the soil and climate are well adapted to almost every variety of grass and fodder plants. He gives the yield of some grasses (dry) as follows:—

Timothy and Clover	...	...	...	4,100 lb. per acre.
Alsike and Timothy	...	...	..	4,600 " " "
Sanfoine Clover	...	...	...	3,600 " " "
Native Grasses mixed under cultivation				5,100 " " "
Lucerne Clover *	...	...	...	3,000 " " "
Mixed Tame Grasses	...	...	...	2,700 " " "
Meadow Fescue	...	...	...	2,640 " " "

The yield of some fodder plants (dry) for 1891 are as follows:—

Oats and Tares	...	...	...	10,255 lb. per acre.
Oats and Peas	...	...	...	8,837 " " "
Barley and Peas	...	...	...	6,862 " " "
Rye	...	...	...	4,150 " " "

The average yield of fodder corn for 1890, from thirty-two varieties tested, was 50,000 lb. (green) per acre.

Of fodder corns a great variety have been tested, Thoroughbred White Flint far eclipsing all rivals.

The yield, as I was informed, reached forty-five tons to the acre, and, with some other of the stronger varieties, the height of the plant was eight feet, against five and six feet as the largest growth of the previous season. Until quite recently it was assumed, and is even now frequently stated, that the climate of Manitoba was not favourable to the growth of this crop. Mr. Bedford has exploded that myth. Last year, he says, "the seed of over thirty varieties was sown with a common grain drill in rows three feet apart, and kept free of weeds by the use of the single horse cultivator. When cut on August 28th the yield of green corn was from twelve to forty-six tons per acre, or equal to one half of this in dry fodder. These yields may appear large to one unaccustomed to the growth of fodder plants here, but when it is remembered that in our rich soil all varieties of grain have a tendency to throw out side branches and stools, one can readily understand the large returns. We stack the corn in large shocks in the field, and draw it into the barn on the first fall of snow. It cures perfectly in the shock, and is readily eaten by all kinds of stock. This year it is proposed to sow a large area of this grain to be used for silage." The experiments in these fodder corns possess great interest for the farmer, since though deficient in

fattening qualities, they are unsurpassed as forage, especially for cows, whilst they keep the weeds in check as no other crop does. In his interesting report, Mr. Speir, one of the Scotch delegate farmers, says that it has been found in Ontario "that more food can be grown on an acre of land seeded with Indian corn and cut green than by turnips, and the introduction of the silo bids fair to put green maize in much the same position in Canada as the turnip is in Great Britain." As the Manitoban farmer is brought to realise the profitable nature of this crop, there is reason to hope that the wasteful method of summer-fallowing will give place to a rotation system, without which wheat-growing is little better than a gamble.

As we are here concerned, not with theories of farming, but with its practice in Manitoba, matters of great importance to the farmer, such as the relative merits of deep and shallow ploughing, both in relation to weed-killing and to wheat growth, are outside the scope of this volume. Such matters of practical cultivation are proper subjects of discussion at Farmers' Institutes, when the experience of different methods, of different seasons, and of different soil conditions may be compared, and the less informed farmers taught how to grapple with difficulties, to avoid mistakes, and to secure the success which is within their

reach. Such institutions are now established in every part of Manitoba; and it would be difficult to exaggerate their importance.

Owing to peculiarities of climatic conditions there is an inevitable push and hurry in farm work at certain seasons. Procrastination or idleness, muddling or ignorance, will receive the reward which they merit. Each returning season brings its special work, which must be performed promptly and intelligently if irretrievable loss is to be avoided. In the interval between harvesting and threshing, the farmer seizes the opportunity for stubble ploughing, and the best ploughing will yield the best return for his labour. Every hour is valuable; for the chances are that in October a severe snap of frost may arrest this work; and however fine and mild the subsequent weeks of the year may be, the frost rarely relaxes its grasp of the soil until the following spring. Mr. Speir, in his report, writes: "In all the North-West ploughing is done very shallow, seldom over six inches deep, and in the present state of the fertility of these lands it has been found to be the best plan. If the land were deeper ploughed it is generally conceded that the crops would suffer less from drought; but it has been found that grain on new land, deeply ploughed, generally grows so much to straw that it does not ripen well, and that about as much

is lost through late and irregular ripening and occasional deterioration by frost as is gained by conservation of the moisture." It is clear, however, that no fixed rule can be laid down as applicable to all the varieties of soil and situation. The great thing is to get the largest possible acreage ploughed that the soil may be exposed to the pulverising and fertilising action of the frost and snow, and ready for seeding as soon as these disappear.

When ploughing is no longer possible, the provident man employs his spare time in laying in a store of wood for winter fuel, for the erection or repair of farm buildings, for fencing, and other purposes. Wood may be obtained in most districts within a reasonable distance; and, as we have seen, a settler who has no timber on his homestead may purchase a wood lot, not exceeding twenty acres, at the price of \$5 per acre.

But the "bush," as it is called, is being rapidly exhausted; and already coal is largely substituted for wood for domestic purposes. Unfortunately the price of coal, which in 1890 was forty shillings per ton at Elkhorn, has been prohibitive to many settlers; the supply will however meet the demand. In the south-east of Alberta the Lethbridge mines are now in full working order, and a branch railway connects them with the main line of the Canadian Pacific Railway, thus ensuring reduced

freight charges and moderate prices for coal of excellent quality. But this is neither the only nor the principal source of supply for Manitoba. As we have already seen the coal fields of the Souris district, which are ascertained to extend from the Souris river to a point near the 108th meridian, are now opened up by a railway extension from Brandon. These beds, overlaying the cretaceous clay, are carbonised trees, inferior in combustion to the coal further west, but they have the advantage of being more easily workable, as well as more accessible.

A few words should be said in this place of the autumnal aspect of the prairie. We have seen it in spring and in summer; and in the following chapter we shall see it in its winter garb. In the fall the red sun of the Indian summer floods the prairie with light and warmth, with which the hard frozen earth seems strangely unaccordant. There is a degree of electricity in the atmosphere which plays upon every nerve, and in which the old man renews his youth. But in the autumn sunset nature seems to put forth all her powers to electrify his sense of the sublime. Thirty years have passed since Professor Hind wrote that, in its setting, the sun "throws a flood of red light indescribably magnificent upon the illimitable waving green, the colours blending and separating with the gentle

roll of the long grass, seemingly magnified toward the horizon into the distant heaving swell of a parti-coloured sea." No drizzling sleet, or chilly rain, or pestilential fog, ever mars these wonderful effects. The Indian summer is sometimes slow in coming, but when it comes it is perfection.

If the summer is lovely, the autumn is glorious—a spectacle of wonder to the eye, surpassing the power of art to represent or of pen to describe. A single night often produces the sudden transformation. At the first touch of severe frost the profuse and beautiful foliage of the maple, and the graceful leaves of the trembling aspen change the livid green which they have retained all through the summer, for the most dazzling hues of great variety. The autumnal tints of an English landscape are perhaps more varied, but not more beautiful than the wondrous wealth of prairie colours. In favourable falls, one writes: "These autumnal hues vary in a most wonderful way, the same woods, and sometimes the same trees, showing every variety of bright colour, from a pale and delicate yellow to crimson, and on to the scale of deep purple." The red-stalked willow which surrounds every bluff is clothed in leaves of gold, and mingled with it are shrubs, which I am unable to name, whose red and purple tints are rendered more lovely by contrast, here and there, with the yet-green

leaves of a willow which has escaped, or defied the touch of frost. All around the prairie is dotted with the white cotton-like pods of the anemone, and with myriads of dwarf-rose bushes in varied shades of green and brown and red, whilst clusters of the large fruit of the hawthorn are resplendent with colour. The grasses, too, are a notable feature. One who knows them well, writes : " The reddish hue of the poas and other wild grasses, the salmon colour of the sedges, the yellow of the bunch, buffalo, and blue-joint grass, the deep green of the vetches, the saffron-coloured reeds, the red, white, blue, and yellow of the rich autumn flowers blend their beauties in a marvellous picture." But it is death—not life—which thus transports us with its beauty. The autumn leaves are waiting the first wind to scatter them. In a few days—two or three weeks at the utmost—every trace of all this glory will have vanished. The wide prairie will be enveloped in its shroud of snow ; the sway of winter established. But neither do the heavens appear as though draped with mourning, nor is respiration choked by fog, which is practically unknown. The sun shines with almost uninterrupted brilliancy. Cyclones are unknown—except by report. In a word, the early winter—the Indian summer—is frequently the most agreeable part of the year.

CHAPTER VI.

A PREVALENT and very mistaken idea exists, that half the year in Manitoba is a season of enforced idleness—that from the time when the frost gets its permanent grip of the soil, until the end of March, out-door occupation becomes impossible. Nothing could be more erroneous. Very little snow falls on the prairie, a depth of fifteen inches being seldom exceeded; though in Manitoba, as we have lately experienced in England, there are exceptions to an ordinary season. Storms of sleet and wet snow are unknown; the snow is so dry and light that in sheltered localities cattle, sheep, and horses may be left out nearly the whole winter. Such at least is the opinion of stock-raisers, who hold that even a low temperature is not injurious to cattle when the cold is dry.

The deeper the snow, however, the better it is for the farmer. Be it much or little it freezes as it falls. Accumulating in hollows or sloughs, the whole extent of prairie becomes a level surface

excellent for sleighing. It is no longer necessary for the teamster to keep his horses or oxen upon a possibly circuitous trail; in every direction he can travel in a straight line, and over an even surface to his goal. At the season when grain has to be hauled—it may be ten or fifteen miles—to the nearest elevators, a good road is matter of no small importance; and from October to Christmas, or even later, the farmer's teams are busy in carrying the produce of his fields to centres of distribution. Elevators are now erected at most railway stations, and are of great advantage to the farmers, who convey their grain in bags containing about three bushels; the contents are emptied into the "hopper," weighed, and then passed through the machinery perfectly clean, and ready to be transferred to the long train of cars provided by the various railway companies at every depôt. The elevators belong to private companies or individuals; and the men in charge, of whom we shall have more to say anon, grade and price the wheat. There are practically four grades—Nos. 1 and 2 hard, and Nos. 1 and 2 Northern—inferior samples being either rejected, or adjudged of rubbish value, though, in fact, "frosted" wheat, as it is termed, is good enough for milling purposes, the flour being of a darker colour but losing none of its nutritious properties. It is therefore a profitable article of merchandise,

even more so, it is said, than the highest graded wheat. If the farmers would reserve it either for home consumption or for pig-feeding, it would soon command its fair price at the elevator. Unfortunately they too frequently reserve it for seeding, with the inevitable result that a sickly plant is cut down by the first frost. If it escapes that peril it has insufficient vitality to resist the effects of drought ; its growth is slow, harvest is late, and an August frost brings home to the grower that truth of universal application, that what a man sows he shall also reap. But thus, also, the climate is credited with effects which are simply and wholly due to the want of ordinary prudence and forethought.

The winter is a season of comparative leisure, affording opportunities for social intercourse of which Manitobans are not slow to avail themselves, and the social conditions of the country leave little to be desired. But they partake of the *rerum primordia*. The mansion in Belgravia, or the precincts of St. James's Hall, besieged by ox-waggons of a more or less primitive type, would be a spectacle for gods and men. But on the prairie the ox-waggon is no more incongruous, but a good deal more comfortable, with the thermometer 20° or 30° below zero, than the "buck board" or "buggy" of the more opulent

resident ; and a drive of twenty miles to a concert or social gathering is an event of ordinary occurrence.

I have found that there are few things about which people at home are more incredulous than the possibility of an agreeable side to the social life of the prairie. Everything depends upon the capacity one possesses for adaptation to new conditions. In a general way, the amusements of the town are of course absent ; and the man who has no better aim in life than to "kill time," had better stay at home. Fastidious people, to whom the conventionalities of English society are almost a religion, who hold a violation of the Decalogue and of the rules of grammar in equal abhorrence, or who have conscientious objections to the smell of fustian, would neither please nor be pleased with the average prairie community. Solecisms and eccentricities of speech he would assuredly hear from men whose best suit of clothes is not always made of broadcloth, and in whose general manners he would perhaps detect a certain lack of polish, combined with a distinct assumption of equality. Suppose him to congratulate a Canadian—say upon his good crop of potatoes, he would be answered—"You bet ! I guess there's quite a few ;" and if the reply produced a swoon, the chances are that there would be no

doctor within fifteen or twenty miles ; for doctors find it hard to earn a living where the atmosphere is a constant tonic.

There is no doubt that the Canadian is a pronounced democrat ; allowing no superiority in intellect, or culture, or wealth, to influence his claim to perfect social equality. A man is taken at his worth, and in such estimate there is no place for considerations of birth or occupation. It is unfortunately true that the native Canadian will sometimes use a freedom to which a man fresh from the sacred conventionalities of civilisation finds it hard to reconcile himself, and which no amount of good nature can condone. The following is, I hope, an extreme instance :—My son had employed a brick-setter, who, with his father, farmed a homestead at a short distance. The supply of milk ran short, and, with great good nature, this man, who was slightly indisposed, remarked—“ We’ve quite a lot at home, and I would go and fetch some but I don’t feel like walking to-night.” I protested that such a thing must not be thought of, which possibly he understood as an invitation to remain for the night. Without another word he entered the shanty, threw off his outer garments, and took possession of my son’s bed !

Equality is not claimed ; there is an entire

absence of that insolent self-assertion which we sometimes encounter in the English mechanic. It is simply taken for granted, without a suspicion that it might be challenged. But with it there is also a degree of self-respect, and a complete absence of the hardness, injustice, cruelty, and avarice, and the imperfect recognition of the *meum et tuum* which occasionally characterise the English settler. Of the contentedness and absence of avarice which characterise the Canadian, I met with a curious instance. An old man, who, I believe, could neither read nor write, living with his wife in the poorest shanty on the prairie, constructed of one-inch boards, unplastered within, and whose homestead was mortgaged, heard that by the death of a relative in England he had inherited a large fortune. The information came to him in the form of a newspaper cutting, sent by some friend. Two or three months later I met him and offered my congratulations. "I suppose it's all right," he said, "but I don't know." "Have you no legal adviser?" I asked. "No," was his reply; "if they bring the money to us we shall be glad of it; but they must *bring* it, I sha'n't bother."

It is not often that Canadians are thus ignorant. The Dominion Government is behind no country in the world in the provision it makes for the

education of its people. In Manitoba—as in the other provinces—education is free, and any district in which there are fifteen children of school age, can claim the establishment of a public school with a duly qualified teacher. By an Act of the Manitoban Legislature in 1888, the separate, denominational system was abolished. The control of the educational system is vested in a Board of Education, and the increase in the number of schools has been remarkably rapid. Statistics of the Roman Catholic schools are not available; but whereas twenty years ago there were but 16 Protestant schools in the province, in 1881 there were 128, whilst in 1892 there were 522 districts organised, and over 600 schools in operation, with a school attendance of 19,000.

But in the absence of school inspectors attendance ceases to be compulsory, and parents are too often satisfied with very meagre attainments, removing their children as soon as they can be useful on the farm. I one day encountered a group of five youths who were discussing the latitude of some town, but wholly unable to agree whether latitude was reckoned north and south of the equator, or east and west of *Winnipeg*! Those holding the orthodox opinion were in a minority of one. When, on being appealed to, I supported their not very confident guess—for it

was no more than that—one of them said—"Well, now opinion is equally divided, so we can't settle it." I offered to explain, but was told that one man's opinion was as good as another's.

The older people are often the better educated ; many of them, though born in Canada, being of Scotch or English parentage ; and some of these are excellent company. Their range of conversation may not be wide, but they are acute observers, intelligent, cheerful, courteous, provident, generous, and God-fearing. More cannot be said of the best class of English settlers, except that they excel the Canadians in culture, which, however, not unfrequently proves to be very superficial. Life with such is no doubt restricted in its interests ; but is it not the same with those who are exposed to the fret and strain of business life in our towns ? The range of their conversation is equally limited, only it is on a different plane.

Every one has heard of the "surprise parties" which form a characteristic and very agreeable feature of social intercourse in the winter months. The easy and rapid motion of the sleigh is as delightful as it is invigorating—especially to those who are fortunate enough to possess horses. To those who are not, the dog sleigh has a charm peculiar to itself ; and a walk of twenty or thirty miles has no terrors for the pedestrian, as in the

germ-laden fogs and slushy roads with which recent winters have too much familiarised us. The snow being dry, and rain unknown, the moccasin is the universal foot-gear ; no other kind of shoe being equally warm and light. With the younger portion of the community tobogganning is a favourite amusement, and in a hilly district it is not only intensely exhilarating, but has just that small spice of danger in which irrational youth delights.

It is much to be regretted that the consumption of spirits, made more fiery by abominable adulteration, appears to be on the increase ; but this is chiefly amongst the "remittance farmer" class, with whom "whisky-sprees" have become an institution. Horrible stories are told of boys lured to these revels, who, when solicitation failed and ridicule was gallantly borne, have been compelled by brute force to drink the accursed "fire water" until, lost to a sense of shame, they have become as debauched as the demons who cajoled and betrayed them. As a rule, however, prairie communities are temperate, and persistent inebriety results in social ostracism. The climate favours sobriety, for, whilst the fact is more generally recognised than at home that alcohol lowers the temperature of the body, the exhilarating atmosphere lessens the craving, even of the habitual





SPORTSMAN'S CAMP.

drunkard, for an artificial stimulant. There is nothing to create the unnatural desire for something that shall excite vital action, where the air he breathes supplies a stimulant that brings no lassitude in its train.

In the "fall" the diligent farmer has no time for sport, as in a country where farming operations can be carried on with little intermission. For those, however, who are so inclined, wherever bluffs and sloughs abound birds will be plentiful at almost any season. "If you are wise," says the Marquis of Lorne, "you will make a note of the places where these ponds are most numerous, and come again with a little camp outfit in the spring or autumn, when the duck flights are going to or returning from the Arctic. I have shot eight or ten varieties of ducks and geese in an hour or two in such country, and the birds are in excellent condition." Flocks of birds of many varieties, migrating from the far north, find a rich feast upon the stubble on the extensive grain fields which the unbroken prairie, often blackened by fires, did not afford them in former days, and game of this kind promises to become increasingly abundant, although their stay is brief. But when threshing is over there is game enough left on the prairie to satisfy any reasonable sportsman. Wild geese and ducks have taken their

departure, but the prairie chicken and the plover, the sand-crañe, or wild turkey, and other birds, are still plentiful.

The indiscriminate slaughter of the prairie chicken is now checked by a close season, extending from the 1st of January to the 1st of September; and a bird which but lately seemed marked out for extermination, and which constitutes a dainty dish, breeds freely in the sloughs and falls in great numbers to the sportsman's gun. It is, perhaps, to be regretted that an Act passed in 1888, which made it an offence punishable with a heavy fine to expose any of these birds for sale or to send them out of the province, has been rescinded. But, judging from the great abundance of the birds last season, these strict provisions appear to have accomplished their purpose, and the dwellers in towns may well think that they are entitled to a share in the favourite game-bird. A strict observance of the close season will probably suffice to remove any fear of its extermination.

The partridge, or ruffed grouse, is common in most wooded districts all over Manitoba. Unlike the prairie chicken, it never leaves the shelter of the woods, where it feeds in winter on the buds and berries of the hazel, hawthorn, wild roses, and other shrubs. It has all the characteristics of the

partridge of Ontario, and is considered as good eating as the chicken itself. This bird has also become more plentiful since the close season has been enforced. The Act forbids the taking or having possession of the eggs of all birds, and also the shooting, trapping, or killing of any bird or animal included in its provisions on a Sunday, whilst no person without a domicile in the province may shoot at any time without a license, which costs \$25. The Government, however, grant a free permit to shoot to the *bona-fide* guest of a resident.

The sand-crane, or wild turkey, is, from its very lofty flight a more difficult bird to bag. I have frequently heard their hoarse cry from an altitude at which they were entirely invisible. But in the early morning they settle, sometimes in large numbers, on the stubble, and, though not easily approached, the careful sportsman has no difficulty in getting a good shot.

Hares and rabbits are abundant, and as the variety of flesh meat is not great, they are much appreciated for the table. There are in Manitoba three or four varieties of the rabbit. The largest, and probably the most common, is the mountain hare, or Jack-rabbit, as it is called, which generally weighs from ten to twelve pounds. But the sportsman aims at higher game. In most parts of Manitoba the elk is now practically extinct, but

is still found in the Souris district, whence it occasionally migrates north and west, and I have known them to graze on the wheat fields in the early morning within ten miles of Elkhorn. In the northern part of the province moose-hunting still offers its attractions to the hardy devotee of sport. Fox-hunting is, however, the favourite pursuit, especially with English and Scotch settlers. Apart from the pleasure of the chase—whatever that may be to a human being who kills merely for the sake of killing—fox-hunting has home associations, and lends itself to social intercourse as no other form of sport can do; and, above all, it is shared by the ladies—who, I believe, are its principal and resolute apologists.

If that is a reflection upon the fair sex, I hasten to offer them a well-merited compliment. In the agricultural shows, which afford so much interest and instruction, and which are usually held in October, the ladies take a lively interest, and add very appreciably to their attractiveness. I was much impressed with this fact at the Virden show. The building in which exhibits are made was divided into two compartments—one for grain, vegetables, and dairy products, the other for light manufactures and the fine arts. Interesting as was the former, with its vegetables of monster size, its variety of grasses, cereals, and other produce, it was eclipsed

by the latter, with its etchings, water-colours, embroidery, and birds and animals which would not have discredited the most skilful taxidermist. The opinion was freely expressed that the best part of the exhibition was the fine arts department, and especially the display of ladies' work. The stock exhibit had of course a special attraction for the practical farmer, but was on a more limited scale than might have been expected at such a centre. This is perhaps explained by the very inadequate offers of prize-money; if I remember rightly \$20 being the highest prize in the entire list. Portage la Prairie and Brandon excepted, Virden has, within a radius of twenty miles, a larger agricultural population than any town in Manitoba, and is most favourably situated for an exhibition. But, if its past record is to be improved upon, more prize-money must be distributed. A remarkable feature of last year's show was the small exhibits of sheep and hogs. The district is so well adapted for the profitable raising of these animals, that it is to be regretted that emulation is not encouraged by offering prizes exceeding \$2 or \$3. A feature of the show which I did not witness was the horse-races in which again the ladies were well to the front; but, says a local writer—who deserves impaling—"several ladies of the vicinity who used to think the judge a nice man *have changed their minds.*"

To return from this digression, it must not be supposed that, as a rule, the farmer is greatly addicted to sport. The devotee of sport is never the successful farmer. He finds in it an occasional recreation, and is satisfied with beating his bluffs for rabbits or his stubble for prairie chicken. The winter brings its special work, and affords him no superabundance of leisure and no time for idleness. The days are short, and in addition to the needful care of his stock, to the never-ending round of dairy work, of grain hauling, and of social duties, he has farm buildings to erect, to rearrange, or to repair, and all his plans for the coming season to mature. He will attend meetings of Farmers' Institutes, the Dairy Association, and the local agricultural shows; collecting, testing, and where possible adopting ideas which accumulated experience have shown to be advantageous. Very welcome to him is the return of spring, the melting of the snow, and the unclouded sun which thaws the frost out of the soil. There is no time now for ploughing, and the system of spring ploughing, which obtained a few years since, has been generally abandoned, for this amongst other reasons, that land ploughed in the spring loses the stored-up moisture required to nourish the young plant, and leaves the seed-bed loose—a condition fatal to a vigorous growth of wheat which requires a firm grip for the root.

It is seldom that the farmer can get upon his land before the first week in April. All his thought is then directed to seeding, the various cereals and the area to be sown having been previously decided upon. It is possible that, owing to deficiency of labour or to its early suspension as the result of October frost, his stubble ploughing was not completed in the autumn. In that case the unploughed area is prepared for the reception of seed by the harrow. Putting on weight, it can be cultivated to a depth of four inches, and, as some maintain, put in better condition for seed than by the plough, the soil being more thoroughly pulverised than by ploughing in wide furrows, when the clods "are simply turned upside down, themselves unfit to receive seed, and the fine soil kept open by them." Upon that I venture only one remark, that to the lay mind it appears obvious that the seeds of weeds, with which the stubble is crowded, will germinate before the wheat and imperil its growth.

The most approved seed-distributor is the press drill, the important feature of which appears to be that it rolls the soil firmly over the deposited seed. The young plant is thus protected from hot winds and frost by the unpressed, and therefore higher soil around it. The seed also germinates before the weeds, which are choked out by its vigorous growth—a matter of much greater importance than early

sowing. Although rain occasionally falls in April and May, heavy showers are seldom experienced before June, and if the seed-bed is so ill-packed that the surface mould in which the grain should germinate remains loose and dry, the seed is chilled. Early seeding then becomes a snare, germination being so long delayed as to give the weeds a start, and to increase the risk of damage by frosts. In a well-consolidated bed, however, early seeding has been shown by experience to be of the utmost importance, a difference of nine days—other conditions being equal—making a difference of as much as 45 per cent. in the yield, with a corresponding disproportion in quality.

One of the many practically useful hints for which the Manitoban farmer is indebted to the Experimental Farm at Brandon is the importance of light harrowing over the newly-sown grain, as soon as the blade has shown above the surface, for the purpose of killing such annual weeds as lambs'-quarter and buckwheat, which are the greatest pests. An interesting experiment in 1890 showed the following results: On several plots, where soil conditions were similar, all but one were harrowed once; "the untouched plot had about fifty times more weeds than the others, and the wheat crop was poor, whilst the grain crowded down the weeds on what would otherwise have been very weedy land, and made a

good growth as well. Peas were treated with equal success."

Another valuable service rendered by the Experimental Farm is the careful tests made to ascertain the early ripening qualities, and the returns per acre, of a great variety of grains, which the farmer is now enabled to make a factor in his calculation. For all such experiments exact areas are measured off, the yield of which is weighed, measured, and placed in carefully-labelled sample bags in the show-room, for the inspection of visitors to the farm. The extent to which these experiments have already been made at the Brandon farm by its able director is as surprising as it is creditable to his energy and capacity. In the exhibition room he has gathered a collection, perfectly bewildering to the uninitiated, of cereals, grasses, and other products grown upon the farm—interesting to all, but invaluable to the intelligent agriculturist. No less than 12,000 samples of wheat, barley, and oats were distributed gratuitously from the Experimental Farms last year, where experiments had shown that they were likely to prove useful to the recipients; and the distribution of roots, grasses, and trees is on the same liberal scale. As an instance of the work done on the central farm at Ottawa, Mr. Wood,

one of the English delegate farmers, mentions that in 1889, "251 varieties of potatoes alone were grown side by side under similar conditions, whilst 237 new varieties were raised from hybridised seeds."

Hitherto the wheat grown in Manitoba has been almost exclusively the "Red Fyfe"; and the preference for this grain has been justified by the high rank it has taken in the markets of Great Britain and the Continent. But, in a climate like that of Manitoba, even quality must be subordinated to the safety of production. The wheat that ripens soonest is that which must eventually supersede all others. The original introduction of the Red Fyfe into Canada is worth recording, as, in the opinion of many, its early ripening qualities have suffered from its cultivation in Ontario. A fresh importation of the grain would, it is believed, place it in the van of all competitors. A few grains of this wheat, found in the hold of a Russian vessel at Glasgow, were sent out to an Ontario farmer, and it took its name from having been first grown on the Fyfe farm in that province. Its adaptation to soil and climate soon acquired notoriety. Samples commanded high prices, and deterioration naturally followed the repeated sowing of the same grain upon the same soil. It was grain thus impoverished

that was introduced into Manitoba, and is still likely to hold its own although, as the Brandon experiments show, White Connel—a wheat recently introduced from Ireland—surpasses all others in productiveness. The following varieties, grown on new land inclined to be light, were tested against Red Fyfe.

					Yield per acre.	
					Bush.	Lb.
Redfern	...	...	...	...	25	24
Eureka	...	...	...	...	27	16
Old Red River	...	...	...	...	24	—
California White	...	...	...	...	25	26
Russian Hard Tag	...	...	...	...	26	48
Summer Cob	...	...	...	...	28	26
Campbell's White Chaff	...	...	...	...	24	36
White Connel	...	...	...	...	29	14
Red Connel	...	...	...	...	26	—
White Fyfe	...	...	...	...	26	42
Red Fyfe (alongside)	...	...	...	...	27	58

The results of the tests in other cereals will be no less interesting to the agricultural reader. Barley is reported to have "made very surprising yields," whilst even the quantities indicated "do not show the full extent of the returns, for the ground was in most cases covered with grain shed out from the difficulty in getting it cut in the wet weather. The land was new breaking on top of the hill, and in half-acre plots, on which the following varieties were tested. All the tests made indicate that the Danish Chevalier is the

best all-round two-row barley. The yield per acre was :—

			Bush.	Lb.
Danish Chevalier	...	..	51	26
Peerless, White	...	...	49	38
Swedish	...	...	49	8
Beardless	...	...	48	20
Thanet	...	...	48	10
Two-rowed Duckbill	...	...	48	12
Golden Melon	...	...	47	36
Danish Prentiss	...	...	46	40
Prize Prolific (imp. seed)	...	...	43	42
„ (home-grown seed)	...	...	42	26
English Malting	...	...	40	40
New Zealand	...	...	40	8

“New varieties of barley were tried in small plots against Prize Prolific as a standard, resulting in the following yields per acre :—

			Bush.	Lb.
Six-rowed Odessa	...	...	68	24
Prize Prolific, 2-row	...	...	59	43
Gold Thorpe	„	...	56	25
Rennie's	„	...	54	36
Baxter's	„	...	44	2
Carter's Salle	...	...	40	14

“Indian varieties :—

Palimpu	..	...	...	60	24
Tahsik	...	...	...	50	—
Soray Plash	...	...	...	47	—
Spitti Valley	...	...	...	39	18
Bahgramony	...	...	...	39	14

“A large two-rowed barley, resembling wheat

and beardless, made 40 bushels 8 lb., and weighed 62 lb. to the bushel. This was too thinly sowed. The plots on which these varieties were tested were in the valley, and the Prize Prolific grew after potatoes.

"Danish Chevalier barley was also tested for press drill, against common drill and broadcasting, and for thick and thin seeding in half-acre plots every way equal, with results per acre as follows:—

				Bush.	Lb.
Press Drill	...	...	...	60	14
Common Drill	...	...	...	56	10
Broadcast	...	...	...	50	46."

Oats sown on the high lands, though partially shelled out, are thus reported:—

"Of Black Tartarian enough to seed a half acre was selected, the grains all small plump, black-side grain with no arms on the ends. This sort of seed made 12 bushels an acre more than the average sample of the same seed. Of the best known varieties the yields were as under from half-acre plots. Welcome proved earliest:—

				Bush.	Lb.
Black Tartarian, selected	...	...	...	88	4
" ordinary quality	...	...	...	76	2
English White	...	...	...	83	
Early Blossom	...	...	...	82	
Early Calder	...	...	...	81	
Glenrothen	...	...	...	77	

	Bush.
New Zealand	76
Black Champion	74
White Russian	73
Banner	73
White Australian	72
Flying Scotchman	71
Welcome	64"

The tests of the season (1890) as between early and late sowing were unfortunately unreliable in consequence of the August frosts, which very largely deprived them of the accuracy without which they are misleading. Professor Saunders has, however, supplied this want in a bulletin in which he gives the results within his own experience. It shows in a very marked way the advantage of early seeding. In one variety of barley the seed sown on April the 22nd produced nearly 16 bushels per acre more than that sown a week later. In another the difference was 11 bushels. In oats, for some unexplained reason, the yield was remarkably low, and the difference did not appear so quickly; but whilst the first sowings yielded 37 and 35 bushels, those of a month later yielded 17 and 19 bushels. In spring wheat the greatest difference was seen between the sowings of May the 6th and the 13th; the former yielded 8 bushels and the latter 4 bushels per acre.

As the most important cereal, the interest of these experiments centres very largely in wheat. The publication by the Board of Agriculture of the complete statistics of the principal crops in the United Kingdom for 1890, enable us to compare the results obtained in Manitoba with those of an exceptionally good year in Great Britain; the yield per acre of wheat having in only two years of the past decade exceeded that of 1890, whilst that of barley was the largest ever recorded with the single exception of 1885. It is a noticeable feature of these returns, as confirming the statement that the yield of wheat increases as the northern latitude within which it can be grown at all is approached, that in some of the northern counties of England the yield was as much as 7 bushels an acre above the average, while counties like Essex, Sussex, and Kent fall below the average. The yield per acre of wheat in Great Britain was 30·74 bushels, against 29·89 in 1889; that of barley, 35·02 or 3½ bushels an acre more than in 1889.

The best crop in 1890 appears to have been oats, which yielded 41·40 bushels per acre, or 2·13 in excess of 1889. The turnip crop was 15·27 tons per acre, as against a yield of 1,500 bushels on the Brandon Experimental Farm. The mean yield of hay from clover and rotation

grasses is returned as a little over $1\frac{1}{2}$ tons per acre, or half the quantity which is frequently cut from a good slough on the prairie, whilst the yield of cultivated grasses at Brandon in 1889 ran up to as much as $5\frac{1}{4}$ tons per acre. Bearing in mind that the comparison is one of an exceptionally bad season—a year of drought—in Manitoba, with one of the best years that English farmers have experienced within a decade, these figures speak for themselves.

The problem which the Experimental Farms have to solve is—What is the best wheat for Manitoba, that is, the wheat which matures earliest, is most prolific, and of the best milling properties? It would be rash to affirm that it has yet been discovered. A single season's experiments may prove very misleading, and the important question of the tendency towards degeneration of promising imported varieties can only be tested by the experience of many seasons. Some varieties make a great show the first year, leading the inexperienced or over-sanguine to boom them before their real merits have been ascertained. Experiments should be left to the Experimental Farms, where they can be made in large numbers, under exactly similar conditions, and reported by skilled experts for the benefit of the community. As a result of

private experiments, Ladoga wheat has been thus boomed; and no doubt it has in many places justified the high opinion formed of it; but its alleged liability to smut and to degeneration, can only be accurately tested by experiment, which to the individual farmer may prove both costly and indecisive. It is possible that—as appears to be the case with White Connel—it only requires a year or two for acclimatisation. The gentleman who introduced the latter from Ontario—though it also is really a Russian wheat—states that his first year's crop only yielded 12 bushels to the acre; the second year he had 20 bushels, and the third year 37 bushels to the acre. This, although far from decisive, accords with the tests at Brandon; but, says Mr. Bedford, although from returns sent in from all parts of the North-West it has been found to ripen, on an average, ten days earlier than the Red Fyfe, “even if the latter does not yield quite so well and yet escapes the frost, every one knows a fair yield of unfrozen grain is more profitable than a large yield of frozen.”

Of the White Connel wheat Mr. Bedford says, “It somewhat resembles the White Fyfe, but . . . ripens more evenly than that variety, although scarcely any earlier than the Red Fyfe. Its thick chaff appears to protect it from the frost.” Red

Fyfe, on the contrary, is very sensitive to fall-frosts, owing to its very thin skin and thin chaff, whilst it ripens unevenly, giving a percentage of immature grains very injurious to the sample. A point in its favour is that it commands the highest price in the English market. Speaking at the Brandon Farmers' Institute last year, Mr. Waugh, the accomplished editor of the *Nor'-West Farmer*, said: "The best kind of wheat is the variety whose seed of good quality can be most readily got, which after you have got it suits the greatest number of soils, yields the highest average crop of good wheat, is most acceptable to the greatest number of buyers, and can be grown the longest time in the same district without showing symptoms of serious degeneration. Taking all these points together, and looking to past experience as the safest guide to future action, I say that Red Fyfe is the all-round best wheat ever seen in the North-West. We are all, I dare say, familiar with the objections that can be brought against it, but I stand to my position in spite of them and if I were to go south of the International boundary line, where Scotch Fyfe, as they call it, degenerates much faster than it does here, I am certain that there is a more widespread confidence in Red Fyfe there than there is even in this country. That confidence, both there and

here, is based on the fact that Red Fyfe, after a dozen years' trial, has been found the best adapted to our soil and climate, and commands the highest price on 'the market."

But even Mr. Waugh is fain to add, "It is certainly just a little too fond of fine weather in August, and when a cold spell comes down about that time, Red Fyfe does not get on with it so well as we would like." "If," said another speaker, "we could get on at a heavier coat, we might decide on it as the best for Manitoba farmers to grow."

It is clear that the Battle of the Grains is not yet fought out, and that it must be solved by the Experimental Farms. Meanwhile it has been convincingly shown that both the quality, and the yield per acre, of all Manitoban-grown wheat and other cereals, are higher than in any other part of the North American continent, whilst the amount of labour required to produce a crop is, owing to the nature of the soil, less than in any other part of the world, India perhaps excepted.

Many are hoping for excellent results from cross-fertilisation; and at the Central Experimental Farm Mr. Saunders is crossing Red Fyfe with some of the early Indian wheats, and hopes to get a variety as early as the latter with all the good qualities of the former. Meanwhile he is so con-

vinced of the early ripening qualities of the Ladoga that he advises its cultivation.

In an ordinary season seeding is finished in the last week of April or the first week of May. The attempt to increase the acreage of wheat by later sowing almost invariably results in loss. Mixed crops for winter fodder may still be sown. Peas, or vetches, mixed with oats and barley, have answered well at Brandon, yielding over 4 tons to the acre. For another month potatoes may also be planted, and rape and fodder-corn sown. Mr. Bedford states that rape, or cole, is one of the most promising green crops, "giving plants 3 feet across the top, and 4 feet high. Sown in 3 feet rows on June 3rd, it yielded in October 33 tons of green fodder per acre. Cattle eat it greedily, and with us it has never tainted the milk when fed to cows."

The practice of continual wheat growing is largely accountable for the prolific crops of weeds, which convert some otherwise excellent farms into wasteful wildernesses. A volume might be written on the subject of weeds, and the best methods for their extermination. In the spring months, when other work is less pressing, the farmer's attention is directed to the attainment of this end. In the present state of agriculture in Manitoba, summer-fallowing is the approved method. The plan usually followed is to allow the weeds to grow

until they get into bloom, and then bury them under a six-inch furrow. It has this recommendation, that the decayed vegetable substance will enrich the next year's wheat crop. But the soil is full of seeds—it may be of last year's growth, or of twenty years ago. Whether scattered on the prairie, or buried so deep in the ploughed soil as to be beyond the reach of atmospheric influence, there seems to be practically no limit to the period of the germinating powers of almost every variety of seed. It has been recently stated that a piece of land in Northamptonshire was converted from a furze fox-cover to pasture, a state in which it remained for thirty years or more; it was then deeply cultivated, and the following season a crop of gorse sprung up over the whole field. Elsewhere, a gardener in order to plant some rhododendrons last spring, turned over a quantity of peat soil, the bottom portion being brought to the surface. The bed is now covered with a thick crop of seedling foxgloves, the seed of which must have been lying there in a state of complete dormancy for probably half a century. This marvellous vitality of the seed of noxious weeds requires the utmost vigilance on the part of the farmer. To prevent their germination with, or in advance of the wheat, the land should be well harrowed on the day it is ploughed. This is regarded as a point of the first importance,

and the harrowing is repeated at least once a month until August. After that date, however vigorous their growth, all annual weeds will be killed by frost before their seeds can ripen. When it is remembered that a single plant—say of lamb's-quarter—will produce 10,000 seeds, which allowed to ripen, will go on growing, if unchecked, for an unknown number of years, it is not surprising that no fear of tearing up the grain hinders the farmer even from harrowing his newly sown fields, and experiments on the Brandon farm show how salutary are the results. Mr. Bedford says, "I have tried harrowing on top of the grain after the wheat got above ground. I did it once on a number of plots in the valley, that had been sown on old weedy land, leaving one plot untouched. There were 300 times as many weeds on that plot as on the others that had been harrowed, and the grain was a much poorer crop."

Before the young blade of wheat shows above the surface a vigorous growth of weeds frequently appears, and, unless destroyed, will grow more rapidly than the grain, as, being nearer the surface, and getting the benefit of light and warmth, they get a first start. Some authorities therefore recommend harrowing even before the grain comes through the soil, a practice of which Mr. Bedford disapproves. Some of the grain he says, is torn

up by harrowing in any case, and by harrowing before it got above ground he believes that the slender shoots would be injured, and the destruction of weeds secured at the cost of the crop.

In ploughing for summer fallow, the farmer's desire is not only to get a good crop of weeds to plough under as manure, but to bring to the surface the buried seeds, which may be destroyed, as soon as they germinate, by the Randall harrow. Such ploughing is therefore sometimes deferred until July. Driving with an old and experienced farmer by his summer fallow, so covered with a strong growth of weeds that they presented the appearance of having been sown with the drill, I was startled at his reply to my expression of commiseration. "I wish the weeds were twice as thick," he said. Ploughed under before the seed has formed, the new growth from the seeds so brought to the surface is destroyed by harrowing, whilst the condition of the land is improved for the next year's crop. In the mean time new land has been broken ready for backsetting in the fall. When breaking is done in the spring, a crop of potatoes may be raised the first year by simply ploughing the sod over them. For this heavy work oxen are considered preferable to horses, and, as they are much less costly, a crop of potatoes thus raised may pay the purchase money and leave the

farmer a surplus. The myth that horses will not live in Manitoba is long since exploded. If its authors had said that horses cannot, like oxen, live exclusively on prairie grass, they would have affirmed a truth even now imperfectly recognised. It is the necessity for high feeding, or the anxiety to raise wheat upon every available acre, which prevents many farmers from substituting horses for oxen. Oxen, however, as a well-informed observer says, "are the necessity of the farmer in cultivating his farm ; in fact, in breaking the prairie he could scarcely do without them. They are powerful brutes, and, for oxen, are wonderfully active. They cost nothing for keep, and also have the advantage of being cheaper than either horses or mules."

About the last week in July hay-cutting begins. The exact date for cutting on unoccupied lands is fixed by the Government. The time is probably not distant when, under a regular rotation of crops, every farmer will grow his own hay and fodder corn. At present he depends almost exclusively upon the native wild grasses which grow luxuriantly in the sloughs, and which, cured to hay upon the ground, make excellent fodder. Where the sloughs retain water the grass often exceeds three feet in height, and three tons to the acre, and when they are dried out a ton per acre is generally secured.

The object of the Government in fixing the date at which cutting in these sloughs may commence, is to ensure the seeding of the grasses before they are mown, and also to prevent one man from gaining an advantage over another. It is open to question whether either purpose is fully attained. The date fixed is too early for the seed to have ripened, and in most settlements there is generally one unscrupulous "grass-grabber" who, if he does not actually violate the law—as to which he betrays an easy indifference—will circumvent his neighbours, and by cajolery and lying secure the best sloughs, even though they abut upon that neighbour's land. Such men, so far as my experience goes, are generally bar-frequenting "gentlemen's sons," of whom Manitoba has more than enough. It is pitiable to see the extent to which the whole tone of a man's life and thought can be lowered by selfishness and a deliberate disregard for the interests and rights of others. Sometimes, however, these "human items" find themselves outwitted—it may be, also, by gentlemen's sons more worthy of that designation. One of these informed me that a year or two ago his sloughs were thus feloniously cut. He quietly looked on, and early the following morning carted the hay away and stacked it in his own yard. His unscrupulous neighbour did not venture to dispute

his right to the hay, which he had unintentionally spared him the labour of cutting.

- On the Canadian Pacific Railway lands no impediment is offered to settlers in cutting the sloughs on unoccupied lands ; but on Government sections a nominal fee is levied for the privilege. Even this, however, does not always prevent the grass-grabber from cutting such sections without a "permit." There is, indeed, a Government agent to be reckoned with, whose duty it is to visée the permit before the grass is removed. But however deficient in manly habits and self-reliance the average "remittance farmer" may occasionally prove himself, the grass-grabber always possesses the latter quality. He will inform such of his neighbours as are likely to compete with him for a given section, or as are known to be on terms of intimacy with the Government agent, that he has applied for, then that he has obtained, the permit to cut. Suspicion is not as generally disarmed as he may suppose ; but he safely presumes upon a prevailing indisposition to push inquiry to the point of a possible breach of neighbourly relations. I was myself witness to a scene in which one of these prairie pariahs informed a neighbour who, as he knew, contemplated applying for a Government permit, that he had himself obtained one for an adjacent section—the same for the half of

which my friend purposed making application. He stoutly averred that he had the Government permit for the whole section in his pocket. Challenged to produce it, he was convicted of three deliberate falsehoods—he had no such permit; he had not even applied for one; and the form of application which he reluctantly produced was not, as he alleged, for the section, or square mile, but for the half of it.

Such men are happily rare. Where they are found they are widely known and justly appreciated. There is grass enough for all, and the greatest injury they can inflict upon their neighbours is to send them a few miles afield for hay, which no man with a spark of honour would seize upon in sloughs adjoining and—in the case of the worst offenders—abutting upon their land.

The long grass dries rapidly, and is generally cut, cocked, and carried within a week. The stacks are never thatched, the absence of rain in the winter months rendering such protection superfluous.

Wheat harvest follows immediately upon haying; in fact, the completion of the latter has sometimes to be deferred to the imperious necessity of proceeding with the former. It is an anxious and a busy time; and often the elements seem to combine to plague, if not to threaten ruin to the

farmer. If his grain is cut a day too soon the sample is shrivelled and unmarketable. If reaping is deferred, the marvellous rapidity with which an enormous area may be cut with the self-binding reaper affords him no guarantee against a host of dangers. The hot sun ripens the grain so quickly that it may shell at the touch of the knife; or a strong wind may shell out half the crop between sunset and sunrise; or a severe snap of frost may ruin it entirely. Sometimes the cautious farmer will reap half his grain on the green side, and allow the remainder the benefit of one or two days' further ripening, only to realise double disappointment. The first half he has cut prematurely, whilst the second, left one night too long, is badly frozen.

But his case is far from hopeless. It is generally agreed that the snap of frost which undoubtedly did much damage on the night of the 22nd of August, 1890, is the earliest on record; and hopes, which do not appear too sanguine, are entertained that several varieties of grain already introduced will mature a full week earlier. There are also precautions to be taken against frost, which as yet are only in the experimental stage. Smudge fires have been found very efficacious. They are made simply by igniting piles of damp straw and other refuse. Mr. Speir states that one of the oldest

settlers in Manitoba told him that he could keep frost off a square mile of land, or more, by simply emptying cart-loads of straw on the north and east sides along the road allowance, and setting fire to it when frost seemed likely to come on ; that is when the wind is from a north or easterly direction, or there is the unusual indication of fog. Those, he says, "who have been successful in keeping off frost by this means say that the smoke is gradually driven by the little wind which prevails over the crop, where the bulk of it lies during the night, effectually preventing any damage. As a rule, it appears to be only one night in a season, or in several seasons, that any damage is done, and if such an area of crop as a square mile, or less, can be saved from damage by so simple an expedient, and at so little expense, it is a great pity it is not oftener adopted. In the wheat-growing districts straw is of so little value that it is generally burned ; it might, therefore, at threshing time or other convenient seasons, be hauled where necessary, and lie there till such time as it was wanted."

After all, very similar or equal difficulties have to be encountered in every agricultural country ; and there is a tendency to exaggerate every accident and drawback to which the farmer in Manitoba is exposed. Mr. Hutchinson, another of the English delegate farmers, shrewdly noticed

and rebuked this tendency. On his arrival in Manitoba, he says, he found the farmers complaining of the wet weather, and they told him that, with the exception of 1884, it was the worst season they had had for fifteen years. I had the pleasure of meeting Mr. Hutchinson at my son's farm on the worst day in that season, and when he informed me that he had not discovered any scarcity of water in the province, I was more than half inclined to think that he was facetiously referring, not to water in the soil, but to the weeping skies beneath which he had just driven nearly forty miles. For when it does rain in Manitoba, one is left in no doubt whatever as to the fact. Mr. Hutchinson, therefore, saw things at their worst; and this is what he has to say of them: "If we had had such weather in Cumberland, we should have been congratulating ourselves upon the favourable harvest conditions; as the season was, on the whole, not so wet as many we experience here."

Mr. Moore, the editor of the *Mark Lane Express*, who spent some months in Manitoba in the same year—as he says, "seeing the country at its worst"—was struck with the same tendency to make more of its drawbacks than the facts warrant. The croakers are generally the men of whom I shall presently have to speak, who know literally

nothing of the country, and whose purpose is to lower the price of produce of which they are the only purchasers. Being asked his opinion as to the damage done by frost in the autumn of 1890, Mr. Moore replied : " The frost came too late to catch the grain in its milky state, and though no doubt it has reduced some of the wheat in its grading, the general damage is slight, of course nothing like what has been represented. In fact, in the English harvests there is usually some damage of equal severity. The climatic difficulties in Canada seem to me to be made more of than the facts warrant ; in England they are greater than here. This year, for example, the harvest time has been one of continuous wet, making it impossible to harvest the wheat and a quantity has sprouted in the ear, and some I hear is rotting on the ground. Canada of course has very cold weather at times, but all countries are liable to these climatic difficulties in farming. At the Royal Agricultural Society's show at Nottingham in 1888 there was a snow storm in midsummer week, and you will remember that in 1867 the Derby was run in a snow storm at the end of May." In point of fact, the injury which the wheat sustained was less the result of frost than of the exceptionally wet season which arrested the work of stacking for two or three weeks, and then

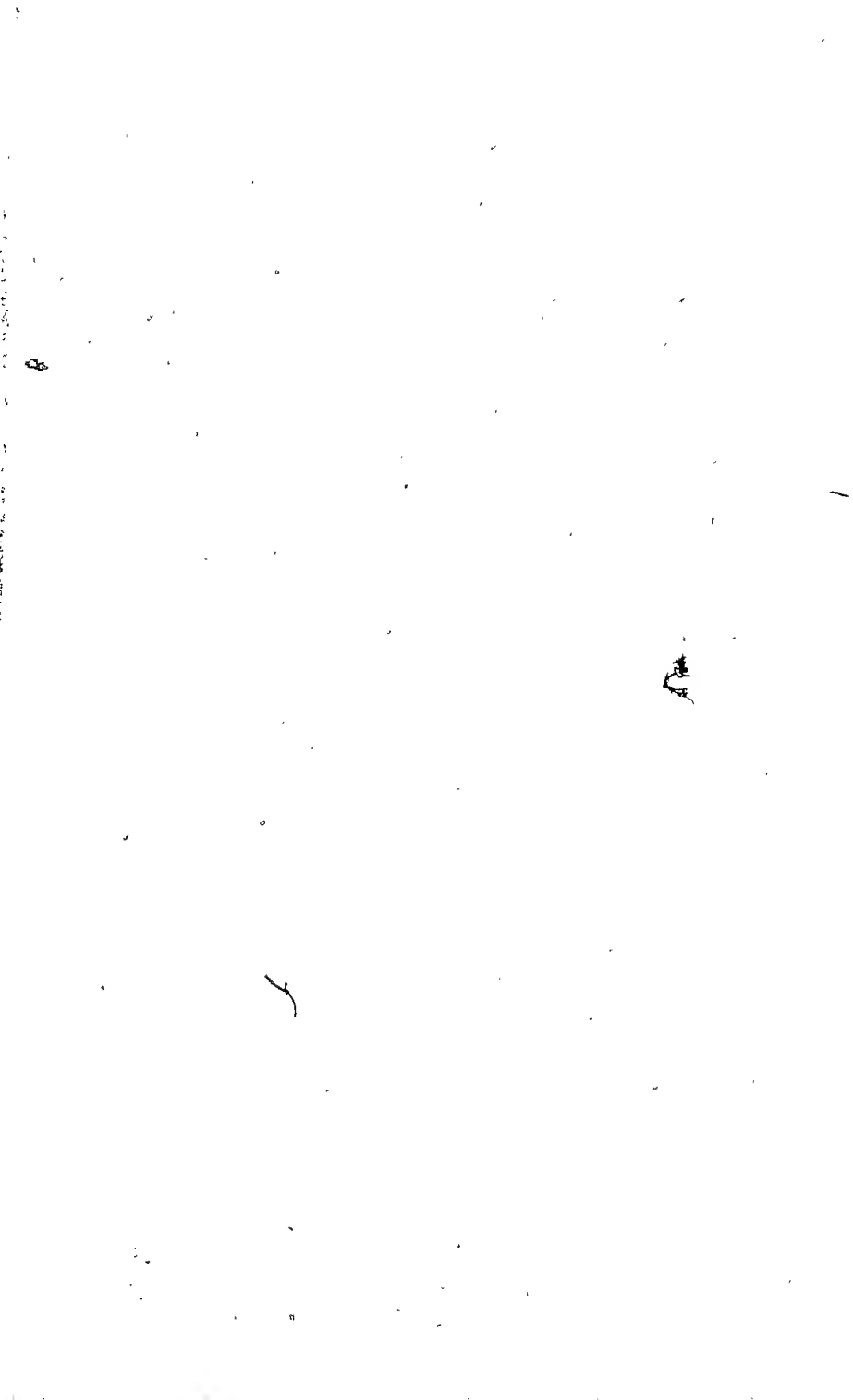
saturated the partially or imperfectly built stacks. There are difficulties to be encountered in every country; and there are few in Manitoba that cannot be overcome by effort and forethought.

From the necessity of economising labour many farmers thresh from the shock—a practice which seems to have surprised the English delegate farmers, who notice it as an illustration of “the rough-and-ready way in which farming is often done in the North-West.” But Mr. Sandison of Brandon estimates the saving at \$25 a day for each separator; besides avoiding the loss of grain from repeated handling. When the wheat is stacked it is done in very primitive fashion. Thatching is unknown, and the art of stack-building is not advanced in Manitoba. The best prices for grain are generally realised before navigation is closed, and, as this may occur any time after the beginning of November, grain is rushed to the elevator and prices consequently lowered. The needy farmer, who must sell his wheat at whatever price it will fetch, is thus very much at the mercy of the agents at the various centres of distribution.

Wheat, as we have seen, is graded into four qualities, the price for each being fixed in a rough-and-tumble way by the agents of the owners of the elevator. These men are always prepared to pay cash for wheat; but their avarice is, in some



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cases, only surpassed by their ignorance. Of course there are degrees both of avarice, of ignorance, and of alertness for cheating. And there are men of high character who would stoop to neither. I fear that such constitute a small minority. In November, 1890, I heard of a well-authenticated case in which, fortunately, the cheater was cheated. A farmer being offered 60 cents a bushel for good wheat, when the current price was 65 to 70 cents, refused to sell. On his way home he met a neighbour who, on hearing his story, shrewdly suggested that they should change teams, and both return to the elevator. His friend submitted to the same agent the wheat for which 60 cents had been refused, and was offered 70 cents without hesitation, afterwards selling his own wheat at the same price. It was, perhaps, moved by the knowledge of such sharp practice that, in announcing the advent of the well-known evangelists, the *Morden Monitor* recently wrote: "Many farmers are expressing the hope that Messrs. Crossley and Hunter will, on their arrival in Morden, devote particular attention to converting the grain buyers of this district to the principles of Christianity."

CHAPTER VII.

A QUESTION of transcendent importance to the Manitoban farmer is the water supply of the country ; yet there is nothing about which the average settler is more apathetic. In rainy seasons his sloughs are filled with water, which may hold out until July ; and for his domestic supply he trusts to surface water which is frequently found at a depth of 10 feet or 12 feet. But all seasons are not rainy, and wells have a tendency to play out at critical times ; whilst the water which they yield is sometimes brackish, and refused by the cattle. Even the water in the sloughs is occasionally strongly alkaline owing, probably, to the alkalis deposited in the soil by the extensive prairie fires being washed by the rain into these basins.

The cause of the poor water—as of those alkali spots in his wheat-field which the less informed farmer so often bewails—can, in the opinion of Professor Macoun, be traced in many instances to the exceeding richness of the soil, which will

retain its fertility just so long as it retains its salts. Another advantage of alkali is that it tends to stiffen and shorten the straw, and promotes the early maturing of cereals. Mr. Macoun rejects the theory that alkali deposits are due to prairie fires, and refers them to the cretaceous clay which undoubtedly underlies the whole country. But the springs issuing from cretaceous clay are too far below the drift, the greatest depressions in which are unaffected by them. As a general rule, however, Mr. Macoun's advice is probably sound. "Dig *in* the drift, never go *through* it." Wells, he says, "sunk to a moderate depth anywhere in the drift which covers the whole country . . . will contain good water. All wells sunk *through* the drift, into the cretaceous clay, will likely be more or less brackish." This may account for a practice which much surprised me—but of which experience seems to have shown the wisdom—of sinking wells through knolls rather than in depressions. The higher the knoll, it is said, the more certain is water to be found below it. The fact remains, however, that, in the vast majority of cases, wells sunk through the cretaceous clay even to a great depth—as in the Territories—have yielded pure water, and may be expected to do so in Manitoba.

To the mere wheat-grower the presence or absence of a plentiful supply of water will make

all the difference between success or failure. But the mere wheat-grower will in a few years be as extinct as the buffalo on the prairie. To the dairy-farmer and stock-raiser, a reliable and abundant supply of water is absolutely indispensable. There are writers who tell us that water is abundant throughout the province. But these are of the hysteric type, from whom we also learn that "the mountains of Manitoba abound with ore," and that such is the fertility of the soil that it "sometimes yields several crops in one year!" In Southern Manitoba the want of water is less felt. Plum Creek, a tributary of the Souris, waters a rich country. East and west are the Souris and the Red Rivers, whilst between these are Pelican Lake, 13 miles long, White-water Lake, covering a very large area, Rock Lake, and some others, all surrounded by luxuriant grass and affording an unfailing supply of water for stock. But in some parts of South-western Manitoba the scarcity of good water is acutely felt.

As I am anxious not to overstate the case, to the prejudice of the Prairie Province, it is only fair to record that of the hundred farmers, scattered all over Manitoba, from whom the Department of Agriculture last year invited information, only three report scarcity of water.

The remainder give their testimony in such words as these: "Plenty, from wells 10 to 15 feet deep;" "Spring at the house, and creek for farm;" "Plenty from a well 40 feet deep;" "Well 8 feet deep;" "Constant spring;" "Plentiful, well 15 feet deep;" "Never failing wells of good water 20 feet deep;" "Excellent water at 22 feet;" "Inexhaustible well 58 feet;" "Plenty in shallow wells," and so forth.

The fact is indeed notorious that subterranean springs exist over the greater part of the province, but their discovery and the storage of water are, at least in some cases, beyond the resources of the individual settler; and the fact has to be recognised that the want of water renders a large area of land in South-west Manitoba at present unfit for settlement. A dozen men are personally known to me who have sunk well after well, only to abandon in despair the fruitless search for water. In one case, a farmer suffering from water famine was compelled to leave his crops rotting in the field, whilst his time was divided between digging wells in every promising locality, and driving his cattle three miles to water. He thus dug a dozen wells before he succeeded in finding water more than a mile from his dwelling. He then seemed to have struck a lead, which promised a good and continuous supply. Two months later

I passed this well, and found it perfectly played out—without a trace of water. Men are to-day leaving improved farms, their patience as well as their resources exhausted; yet the chances are that the man who buys or homesteads them may strike water at his first attempt. But it is a chance. I have known such cases. In one instance a farmer, after abandoning in despair his fruitless well-digging, offered his hired man a bonus of \$10 if he succeeded, and he did so at the first attempt. In another, a well had been abandoned on striking the "blue clay," which is unworkable with the spade. The same night the sides caved in, and a bountiful lead of good water filled the well. The digger had just missed it by a few inches. Had he been six inches further from it, the probability is that the water would never have been discovered. In yet another case, a man, having no appliances wherewith to bore through the blue clay, abandoned a well upon which he had expended much labour. His farm passed into other hands, and at a further depth of less than a foot a copious supply of good water was found.

The uncertainty of the discovery of water is not the only difficulty with which the farmer has to contend. There is always the chance that a lead when struck, after long and costly labour, may

prove to be at the point of exhaustion. The well must then be filled up, or it remains a source of peril to cattle. The future development of the province, away from lakes and rivers, depends generally upon deep well-sinking; and there is every reason to believe that in very many localities artesian wells, of a depth not exceeding 200 feet, and often less, would change the face of the country. Of all such wells ever opened, the artesian wells of Dakota are the most remarkable for pressure, and the immense quantity of water supplied. More than 100 of these, from 500 feet to 1,600 feet deep, are now in successful operation. In some instances they show a gauge of pressure of 180 lb. to the square inch, and yield a never-varying stream of pure water. Of course, well-boring on this scale is beyond the resources either of individuals or of a scattered agricultural community. It is the proper work of the Government. Experiments recently tried in the North-West Territories, under precisely similar physical conditions, have yielded most encouraging results. But Manitoba enjoys Home Rule, and the Dominion Government recognises no obligation to assist her in the development of her resources.

It is, indeed, true that at the cost of incredible labour, and of vast expenditure, the Dominion Government has experimented in this direction

at Deloraine. But in this case it cannot be congratulated upon its sagacity. Two years ago a depth of 2,000 feet has been reached, and the newspapers report that they have brought up a Chinaman. They are unlikely to bring up anything else. If, instead of misdirected pertinacity, where failure was once demonstrated, experiments had been made in other localities, good results would almost certainly have followed, and the waste of public money have been prevented. Should any measure of success now crown the infatuated perseverance at Deloraine, little will be accomplished, beyond the bringing up of the Chinaman, as the effluent must almost of necessity be insufficient for irrigation.

But the task is not beyond the resources of the Provincial Government. If it is objected that water, flowing to waste within 50 feet to 500 feet of the surface, is intermittent, and that springs are not always found where expected, or where most required, this only enhances the obligation of the Dominion Government to co-operate with that of the province in discovering them. It is perfectly idle to object that "there is a risk of a Government becoming too paternal, and of its being expected to do things more appropriate to private enterprise." The Dominion Government is the owner of these lands, upon which it invites

settlement ; and private enterprise will find ample scope in their cultivation. It would be as reasonable for a London landlord to invoke the private enterprise of a tenant in adding roof, flooring, and all other details to a tenement of which he had built the four square walls. A sufficient supply of water is an essential pre-requisite of stock-raising, mixed farming the essential condition of successful agriculture ; and the case for Government assistance in procuring water, the existence of which in abundance is not denied, is unanswerable. It is not the extravagant expenditure of public money, as at Deloraine, which is asked, but simply that the Government should do the work of boring at cost price. With a constant and plentiful supply of good water the value of every homestead would be doubled. The resulting benefit to the province, through the rapid settlement of waterless districts, with a contented and prosperous population, would more than compensate for a trifling expenditure on well-directed work of this nature.

Meanwhile there are large areas in which the enterprising settler can dispense with extraneous aid in securing a fair supply of water ; and he may derive some consolation from the opinion of Professor Macoun that "the absence of water on the prairie is a good sign." It shows, he says,

"that the soil is well suited for farming purposes, but it is no proof that water cannot be had by digging." If the settler is fortunate in striking a good lead in water-bearing strata, at a depth of 10 feet to 12 feet, he can sink his well to a depth of 30 feet or 40 feet. Then the water, which would otherwise run to waste, will be stored up against exceptional demands, or the possible diminution of supply. It is true the lead may play out altogether. But half a loaf is better than no bread, and, generally speaking, the farmer is intelligent enough and provident enough to adopt some such method for securing a perennial supply of the precious element. The following is one of many illustrations of the ingenuity which is brought to bear on this problem. A farmer, realising the importance of securing, if possible, standing water in a slough contiguous to his cattle-sheds, writes: "In a small slough close to the house, which has had no water in it for about three springs, I dug a small hole about 9 feet deep curbed with three ordinary barrels, which at the time gave me about two pails of water per day for about three weeks and then dried. In the winter I made a good brushwood fence round the slough by intertwining the brush on upright posts, 6 feet high, which caused snowdrifts to form, 4 feet to 5 feet high, and as hard as a good road, which,

when it thawed in the spring, made a fine sheet of water, half an acre in size and 4 feet deep. After two and a half months the water dried up, and then I had to resort to my small well, which I could approach now, and watered from it eight head all summer and fall, and am at this time watering four head every day. I am this winter putting more brush round, and intend building another well close to the old one, about 4 feet in diameter, which I think will give plenty of water for any farm with six horses and four to six cows, the water also being the best of drinking water. This I only tried as an experiment, and found it so useful that I had not to draw a bucket of water from off the place for my stock or horses the whole summer, which I had been doing for the last four years before. There is very little expense, the labour and time in all would not amount to a week if brush is to be had not more than four miles away, including the digging of well and curbing."

The value of a good well, supplied from a natural reservoir of this kind, is inestimable, and it is within the reach of many a settler who, in the absence of such supply, cannot practice mixed farming. Or he may adopt the plan of the Australian settlers, and dam back the water, which the melting snows leave in every basin. When the conformation of the land lends itself to

this method of storage, the labour and expense involved will prove an excellent investment. Where this is impracticable, and the wells yield only alkali water, it may not only be sweetened by condensation, but it has been shown that such water, filtered in pipes through 50 feet of sand, becomes fresh. Other processes of clarification may be simpler and more expeditious, but the fact that salt water can thus be utilised for cattle is one of great importance.

The exodus of Canadians to Dakota and Minnesota a few years since was attributable in a less degree to the exaggerated reports of the fertility of those states, than to the belief, which experience has not confirmed, that water was everywhere plentiful. Sir Richard Cartwright certainly scored when, during the recent election campaign in Canada, he retorted, though with great exaggeration, upon the Premier, "True annexationists are the men who have driven a million good Canadians from Canada to the United States during the last ten years."

Dakota is, in fact, in far worse plight than Manitoba, and Canadian immigrants have had cause to repent the rashness which impelled them to "become the prey of the American eagle," as one phrases it, debauched by "the rainbow-hued statements of Yankee emigration agents." In

Dakota, as in Manitoba, wheat is the staple produce. The harvest *Bulletin* for 1890, issued by the Department of Agriculture for the province of Manitoba, shows the average yield of wheat to have been 24·6 bushels per acre. In Dakota the average was only 9 bushels, in Minnesota 12 bushels, and in Wisconsin 12½ bushels per acre. "These are official figures, and from them farmers can draw their own conclusions as to which part of the American continent possesses the best wheat-lands."

With the conviction, painfully acquired, that no state in the Union, or in Canada, can show equally profitable results for good farming with Manitoba, deluded Canadian immigrants, and the Mennonites, who five years ago followed their example, are returning in large numbers. Many of them, after disposing of their American farms at a heavy loss, have repurchased their old homesteads at greatly enhanced prices; whilst some of those stranded in the United States cannot find purchasers for their farms at any price, and "are casting sad eyes towards the Manitoba which they forsook, and where their co-patriots are contented, some even wealthy."

A merchant from Ellendale, N. Dakota, who was in Toronto two years ago, was interviewed on this subject. Threshing, he said, was then going

on, "and it reveals the fact that hundreds of farmers all over the State will not get the value of the seed out of the crop. One farmer told me just before I left home that he had planted 400 bushels of wheat, and he had only threshed 200 bushels after all his labour in cultivation." Asked, "Where are your farmers going to?" he replied, "Almost entirely to the Canadian North-West. Hundreds of our people will go in there this fall. It is strange, but as soon as you go north of the International boundary the crops are good, in many cases phenomenal, and this has a big attraction for our people." Attempts have been made to explain away these facts; but they are confirmed by the unbiased experience of the English and Scotch delegate farmers. In his valuable report, Mr. Wood writes: "Whilst we were at Saltcoats, an agent, acting on behalf of a number of Mennonites farming in Dakota, took up thirty quarter-sections of land (160 acres each), in readiness for their removal during the ensuing spring; the gentleman in question having travelled over a very large extent of country, and finally settled on that district as the one best suited to their requirements. This is one of many evidences of emigration from the United States to Canada."

In South Dakota matters are even worse. A gentleman from Westport, who spent some time

in inspecting farms in Manitoba in 1890 writes:—

“I reached home all right. I found lots of my friends to meet me. My trunk was carried to the hotel and there opened, and by the time they were through looking at the exhibit, most of the contents were in other parties’ arms, and they all declared that they must take them home and sample them.

“It was a big advertisement for Manitoba and her vegetables, for they could not help believing their own eyes!

“Since my return from Manitoba, farmers are coming here every day inquiring about Manitoba. I have just threshed my grain:—wheat averaged two and a half ($2\frac{1}{2}$) bushels per acre; oats and barley one (1) peck to the acre, and that is about the average for this (Brown) County. McPherson County is not so good!

“Several are going out to Manitoba from here this fall, and there are several families going to start in a few days and drive through.”

The failure of the crops in Dakota is universally ascribed to the want of water. Whilst the yield of oats, in the case just cited, was *one-fourth of the seed sown*, some Manitoban farmers describe theirs as

"too heavy," and several report seventy bushels per acre. The following is no extreme case. A farmer, writing from the South Brandon district, where water is fairly plentiful, says: "I came to Manitoba in 1879. My former occupation was builder and carpenter. I consider this the finest country under the sun for young workers. . . . 480 acres of wheat averaged 25 bushels to the acre. Oats were very good, yielding 50 bushels per acre. I had a magnificent crop of potatoes, turnips, carrots, . . . I consider the prospects good. I have faith in the future of this country, and have made it my home."

Such an instance of moderate success has more value, as a factor in the formation of a true judgment of the capabilities of Manitoba, than the flash statements of phenomenal results with which newspaper readers are familiar. At the same time, whilst we sometimes hear of failure and disappointment, it is undoubtedly a fact that, even without capital, a capable, industrious, and steady man does under favourable circumstances sometimes achieve success, of which this carpenter-farmer might be envious. The following is a well-authenticated case. A young farm labourer from Yorkshire went out in the spring of 1890. He readily found employment at good wages, which enabled him at the end of his twelve months' engagement to buy a yoke of oxen. With no other equipment and scarcely money enough to

supply himself with the necessities of life, he rented an improved farm of 320 acres at 400 dollars per annum, 300 acres being ready for seeding—a very unusual proportion. A team of horses, binders, mowers and ploughs were hired, and working with prodigious industry he succeeded in the spring of 1891 in sowing 250 acres of wheat, and 50 acres of oats and barley. The yield more than realised his sanguine expectations, that of wheat being something over thirty bushels to the acre. With the assistance of one man to stook, he commenced harvest on the 24th of August, just escaping the frost. At the thresher's measure he would thus secure 7,500 bushels of wheat alone. At 75 cents per bushel, which was the price at the elevator in the fall of 1891, he would realise \$5,625 as the gross result of his first year's trading upon nothing; and after paying for labour, rent, and the hire of implements would still have a net profit of about \$3,000.

Such success is doubtless even more exceptional than the pluck, and courage, and resource by which it was achieved. The young settler who should base his calculations upon such a record would bring upon himself almost certain disappointment. It is cited to show what is possible under the most favourable conditions, which, besides the personal qualities of the settler, include good seasons, fair prices, and a good water supply. It is needless to

say that these conditions are not always, perhaps not often, experienced in combination.

There can be no doubt that the wholesale destruction of timber, by the devastating prairie fires, is a prime cause of the scarcity of water in some parts of Manitoba—assuming that the rainfall, evaporation, and temperature are directly influenced by a small or large surface of trees. If evidence collected from all parts of the world is not yet rigorously conclusive upon this point, every one recognises that the tendency of evidence is at least uniformly favourable to the axiom that the presence of forest increases the rainfall. The Government is alive to its responsibility, and much has been already done to arrest the devastation brought by prairie fires. Legislation alone, however, is futile. Every acre brought under cultivation offers new resistance to the fiery scourge, and, by promoting settlement, half a dozen Government borers would be more efficacious than the most stringent laws, or the heaviest penalties for causing a fire—whether by design or through culpable carelessness.

In encouraging tree-planting the Government have done well; and it may be hoped that, before the dawn of the millenium, they will enforce by example as well as precept their sound opinions upon the importance of this enterprise. The extravagant road allowances, 99 feet in width

which surround every section of land, offer them a magnificent opportunity." If, wherever these road allowances are sufficiently protected by cultivated land against the ravages of prairie fires, the Government would plant them on either side with such trees as have been shown by adequate tests to be the best adapted to the soil and climate, they would confer an enormous boon upon the country. It is a well-ascertained fact that great advantages result from the presence of groves and belts of timber interspersed amongst cultivated fields, for which the road allowance is so well adapted. Their equalising tendencies upon the local climate are as valuable as the increase of humidity, protection from sun and wind, the prevention of floods and droughts, and the maintenance of the water supply in springs, streams, and wells, even though it could be maintained that they did not actually increase the rainfall. To secure these ends, horticulturists affirm that one-fourth of the land area should be planted with trees.

Meanwhile, tree-planting is very largely a matter for private enterprise ; and, although the advantages are not immediately apparent, they are such as the farmer, least of all men, can afford to be indifferent to. Under average conditions tree culture produces a more profitable return than agriculture, to which it is essential. The services of trees in

the directions already indicated, and also as means of shelter for houses, farm buildings, and animals in the field or corral, it has been said by practical men, alone would give them a large value in every district, and justify all the cost of planting and subsequent attention.

As a protection also against frost, the farmer has yet to learn the value of trees. Manitoba will survive the worst that frosts can do. They are not always severe, or even general, and they will diminish in intensity as the country becomes more cultivated and better timbered. Forty years ago, Ontario, now claimed to be one of the most favoured spots in the world, was subject to frequent and disastrous frosts. An Ontario gentleman, now farming in Manitoba, writes: "In Ontario, where I passed the earlier years of my life, the same damage used to occur from early frosts; but now that settlements have multiplied, and the land has been longer under cultivation, these injuries by frost are unknown. There is no doubt but that the longer a place has been settled, the more safe it is from these visitations. I know this to be the fact in the older districts of Manitoba, . . . which of late years have been comparatively exempt from these frosts." The fact is interesting, and should encourage inquiry into the various precautions which may at least rob the frost of half its terrors.

Dr. Edmunds, who has frequently visited the province, writes in a London journal: "The planting of belts of poplar on the north border of the wheat fields would, I think, serve a useful purpose. It is scarcely known how rapidly such belts of poplar trees can be grown. In five years these trees will grow 20 feet high, and even more, so that in a short time they form an admirable wind-break, and would protect the arable land perfectly." The doctor is perhaps a trifle too sanguine in hoping for a perfect protection. But experience in Manitoba and elsewhere has demonstrated the great value of these wind-breaks as a protection against frost. The following words of a late Professor in the Agricultural College, Guelph, are worth-pondering: "Here men need never hope to gather wealth from agriculture in all its branches, without the help of trees. I can see no great future for Manitoba and the North-West unless extensive and systematic forestry precedes agriculture. The sooner our Government realises this the better for the country. No methods of farming, no railway or water communications, no minerals, natural grazing, or any other advantages will ever 'make' a country without trees. I am not theorising. A peopled agricultural country without trees is an impossibility."

To do them justice, it must be said that the Government offer inducements to individual effort

in tree-planting, by a gratuitous distribution of seeds, and of parcels of young trees, from the experimental farms, to any farmer applying for them, on the easy conditions of his undertaking to carefully cultivate them, and report the results. Some of these reports, as also the experiments at Brandon, are of great value as showing that a larger variety of trees adapt themselves to the climate and physical conditions of Manitoba, than has been hitherto supposed. There are sixty-five species of forest trees in the province of Ontario, whilst only fourteen have been supposed capable of suiting themselves to the dry climate of the prairie country beyond the Red River. And the best known of these — as cottonwood, elm, green ash, tamarack, maple, and oak — all, in fact, except the cosmopolitan poplar, have been supposed to thrive only in the immediate vicinity of lakes and streams that provide the moisture of which the open prairie is destitute. It is obvious that atmospheric conditions attributable to the absence of trees cannot be favourable to their growth. The problem is to reverse those conditions by the cultivation of forest trees which were once indigenous to the soil, and whose destruction has brought such conditions about.

Already it has been shown that many trees which cannot, like the balsam, the willow, and even the black spruce, be regarded as rovers, suiting

themselves naturally and readily to varied conditions, have a sufficiently wide range to encourage the belief that they may be grown in such numbers as eventually to modify those atmospheric conditions which are due to their absence. The *Nor'-West Farmer* has done good service in publishing reports furnished by settlers who have cultivated seedlings supplied to them from the experimental farmers. These returns are unfortunately not made out on a common principle, which would facilitate comparison. One gives the average, or greatest, height of his trees in the fall; another the growth, which is much more important; another the condition after six months' cultivation, and so forth. The number of seedlings received also varied greatly, from 14 to 94. The following analysis shows the general results of seven reports upon ten varieties:—

	Number of plants received.	Living.	Dead.	Growth or condition.
Russian Mulberry	6	6	0	9 inches.
	5	5	0	sickly.
	5	5	0	grew well.
	5	2	3	—
	5	5	0	6 to 9 inches.
	5	4	1	—
	5	5	0	growing well.
	—	—	—	
	36	32	4	

	Number of plants received.	Living.	Dead.	Growth or condition.
Butternut ¹	2	2	0	5 inches.
	2	1	1	vigorous.
	2	1	1	—
	2	2	0	poor.
	2	2	0	—
	2	2	0	good growth.
	<hr/> 12	<hr/> 10	<hr/> 2	
Black Walnut	5	5	0	3 inches.
	2	1	1	poor growth.
	7	5	2	grew all from root.
	2	2	0	—
	5	4	1	6 inches.
	5	5	0	—
	5	3	2	very vigorous.
	<hr/> 31	<hr/> 25	<hr/> 6	
Cottonwood ¹	2	1	1	15 inches.
	5	3	2	sickly.
	10	1	9	grow all from root.
	5	2	3	poor.
	4	1	3	—
	6	3	3	doing well.
	<hr/> 32	<hr/> 11	<hr/> 21	
Soft Maple	5	5	0	13 inches.
	5	0	5	—
	10	5	5	fairly well.
	5	3	2	—
	5	5	0	6 inches.
	5	4	1	—
	8	8	0	not very strong.
	<hr/> 43	<hr/> 30	<hr/> 13	

¹ Of these I have only been able to obtain six returns.

	Number of plants received.	Living.	Dead.	Growth or condition.
Hard Maple	2	1	1	—
	2	1	1	very sickly.
	7	1	6	feeble.
	2	0	2	—
	2	1	1	poor.
	2	1	1	—
	2	2	0	sickly.
	<hr/>	<hr/>	<hr/>	
	19	7	12	
White Elm	27	26	1	18 inches.
	22	22	0	strong and healthy
	25	25	0	vigorous.
	20	18	2	good growth
	23	22	1	18 inches.
	20	20	0	—
	20	20	0	vigorous.
	<hr/>	<hr/>	<hr/>	
	157	153	4	
Box Elder †	25	23	2	22 inches.
	24	23	1	vigorous.
	25	22	3	—
	25	22	3	24 inches.
	26	25	1	—
	25	22	3	strong.
	<hr/>	<hr/>	<hr/>	
	150	137	13	
White Ash	9	7	2	12 inches.
	9	5	4	fairly strong.
	25	18	7	good growth.
	14	6	8	—
	11	11	0	8 inches.
	11	10	1	—
	8	6	2	very strong.
	<hr/>	<hr/>	<hr/>	
	87	63	24	

† Only six reports obtainable.

	Number of plants received.	Living.	Dead.	Growth or Condition.
Green Ash	10	8	2	12 inches.
	10	10	0	good growth.
	13	11	2	made good growth.
	10	8	2	15 to 24 inches.
	10	10	0	12 inches.
	10	9	1	—
	10	10	0	splendid.
	—	—	—	
	73	66	7	

It will be seen that when allowance has been made for degrees of carefulness in cultivation—and this becomes more apparent as the survey is extended—the results of these experiments vary greatly in different localities. This is conspicuously the case with the soft maple. In three instances every plant lived; in another every one died; whilst in a third one half are reported as doing fairly well. But the general result is encouraging in a high degree. The comparative failure of the soft maple is probably susceptible of explanation; but the hard or sugar maple, which, in comparatively recent time grew all over the prairie, though showing a larger percentage of living trees, is in no single instance reported as having much vitality. The maple is an indigenous tree. The leaf is one of the national emblems, and as they attain a height of from 40 feet to 70 feet, and their profuse foliage make them valuable as shade and orna-

mental trees, it is to be hoped that future experiments will prove more successful.

I was shown seedlings of the soft maple at Brandon which had made remarkable growth in the summer of 1890—probably 30 inches—and Mr. Bedford reported that they were generally doing well, and full of promise. The information which he gave me that 3,000,000 seeds would be planted in the spring of the following year, was apparently far short of what has been actually done. A local journal states that 15,000,000 seeds were collected by Indians employed for that purpose in Ontario, and forwarded to the Brandon Experimental Farm. Unfortunately we are not told what variety of maple is to be tested on this gigantic scale. The box-elder, which is the ash-leaved maple, is one of the most valuable shade trees that could be grown, and should be planted in groves about every dwelling; but the white elm, a most ornamental tree, and the green ash are equally useful for shelter, and, as shown by the tests which I have summarised, adapt themselves equally well to the soil and climate.

But the queen of ornamental trees is the birch. It is found both east and west of Manitoba, and could therefore hardly be difficult to propagate in the province. On the Brandon farm it has stood one winter well, and the fact of its not having been

distributed from the Central Experimental Farm is inexplicable. The same remark applies to the pine family. Perhaps their slow growth, and the fact that they cannot be so easily transmitted by post as other seedlings, may explain a regrettable omission. But evergreens are invaluable to the settler ; and the spruce, which grows in great profusion on the eastern border of Manitoba and on the Rocky Mountains, of which, moreover, Mr. Bedford reports favourably at Brandon, is an elegant, hardy, and useful tree ; and the slowness of its growth should be an incentive to immediate experiments in its culture. Its graceful form and great height admirably adapt it to the protection of houses.


Encouraging experiments are being made at Brandon in the cultivation of fruit trees. Upon these limits of space forbid me to dwell ; but it is significant of the confidence of Manitobans in the capabilities of their soil and climate to find them boldly declaring that, in a few years, the Manitoban apple will beat all competitors. Mr. J. T. Wood states in his report that, at the Central Experimental Farm, 360 kinds of hardy apples, pears, plums, and cherries are now being tried, whilst the vineyard contains 127 varieties of outdoor grapes. The various berries, which grow wild in many districts, are also receiving careful and intelligent attention at Ottawa, as at Brandon.

Other industries will find a footing in Manitoba with the growth of its population. Sanguine hopes are entertained that beet-root sugar factories will be shortly introduced, and worked to the great profit of the farmer. The matter is thus referred to in the pages of the *Nor' - West Farmer*: "There is considerable probability of another new industry being added to the agricultural development in the North-West. Count de Raffignac, who last year made a very successful start in the raising of chicory in the neighbourhood of Whitewood, Assa., has this year been able to raise a very fine crop of sugar beets, and on a recent visit to Paris was able to give such a satisfactory report of their quality as to induce capitalists there to form a company to develop the industry. . . . There are already three factories in Russia, where the climate and conditions are very similar to those here. Count de Raffignac states that a cold climate has some advantages over a warmer one, as a better quality of beets can be grown, and even the manufacture carried on later in the season, as there is less risk of unfavourable chemical changes taking place."

Judging from the display of Manitoban beets at the agricultural shows last fall, there can be no question as to their successful cultivation throughout the province. A sugar factory was established

in Nebraska in 1890, and 25,000 acres of sugar beets are said to have brought the growers \$100 per acre. These lands are reported to have been made valuable, and their owners and tillers are prosperous because of the discovery that "they are well adapted to growing beets for sugar. Upon this same land the farmers have been trying to grow corn and oats and wheat for fifteen years; have had poor crops half the time, and when they had good crops were compelled to sell them at very low prices. Yet they kept on raising these crops, because they were the crops they raised where they came from. They did not think it worth while to experiment much with other crops, and foreigners had to show them that they had just the soil and the climate for beets for sugar. They had got into a rut and stayed there. In the rut they got possibly \$8 to \$10 per acre off their land; out of the rut they got ten or more times that amount from their land. Their interest or rent is not increased, and their expense for labour is increased very little compared with the gain in receipts. Evidently the faster they can get out of the rut the better for them."

This picture may be overdrawn; but, without looking for a yield of \$100 worth per acre, it is certain that the Manitoban farmer can grow beet very profitably, and with advantage to the soil. The question has got beyond the experimental stage, and



it is lamentable that, for political ends, a Canadian Minister has gone out of his way to discourage as "rash, incorrect, and regrettable," the disposition of capitalists to embark in an industry by which Manitoba would greatly profit. These words were addressed by Mr. Foster to an assembly of Trinidad merchants; and the thinly veiled purpose of securing to the West Indian planters a monopoly of the Dominion sugar trade was as unpatriotic as it was economically false. At that very time, experts in France who had analysed the Western-grown beets reported that they would produce 2 per cent. more saccharine matter than beets grown in Nebraska. A company was ready to commence building a factory in the North-West, and only awaited a guarantee from the farmers that they would grow a sufficient acreage to run it. That was the moment chosen by a responsible Minister to discourage the enterprise by truckling to the rapacity of West Indian planters!

It may be, as Mr. Foster, the Minister of Finance, said, that whatever foothold the West India islands get for their sugar or fruits in Canada, that foothold they will maintain without any pressure from home competition. But, as a Manitoban journal remarked, "When Mr. Foster stated that the sugar beet could not be grown in Canada, he did not know what he was talking about." This opinion is fully con-

firmed in the official Statistical Year-book recently issued.

Political discussion is foreign to my purpose ; but the fact cannot be ignored that Canada has recently reprimanded, though not yet dismissed, a Protectionist Government, by reducing its majority nearly 50 per cent. The great majority of Canadians, irrespective of political considerations, believed that only the strong personality of the late Premier, which had so long combined and controlled men of opposite creeds and opinions, could continue to unite them in a truly national policy. This was the secret of Sir John Macdonald's power. The "grits" were willing to forget a great deal—even to postpone for the lifetime of another parliament the desired revolution in Canada's fiscal policy—rather than lose the services of so strong and experienced an opponent of absorption into the United States, and whose name will be for ever associated with the triumph of the great railway across Canada. But protective tariffs and electioneering jobs have been tolerated with growing discontent ; and it is unfortunate for the reputation of the great minister that he lived to fight the last general election.

The Government, indeed, only avoided crushing defeat at the polls, by the ignominious stratagem of bringing distorted and unfair charges against their

opponents, and by frantic appeals to the loyalty which assuredly is more thorough and sincere amongst Liberals than in the ranks of their political opponents. Personally I have not met a Liberal, native Canadian or immigrant, who was not revolted at the idea of annexation to the United States, whilst amongst Protectionists I found that it was regarded as an open question, which might at least be entertained as "a pious opinion." Generally speaking, however, the Canadians are intensely loyal, and the sentiment is shared by the official class. A curious illustration of this occurred when Regina was selected as the capital of Alberta. I think it was Lord Aberdeen who recently related the circumstances under which the town came to receive its present name. Originally known as "Pile o' Bones," when it was chosen as the headquarters for the administration of the Territories a change of name was felt to be desirable. The governor was absent, at Quebec, and the question was flashed over the wires—"What name shall we give?" The representative of royalty gave advice becoming his position; and with the hearty assent of the Council, and amid the universal enthusiasm of the citizens, his suggestion of the name of the sovereign was adopted.

The loyalty of the Canadian press is very pronounced; and although it is sometimes said that, of

all the profitable industries which invite English capital in Manitoba, a good newspaper might prove the most remunerative, it is more than doubtful whether this is a legitimate field for outside enterprise. The newspaper press of the province is creditable alike to the energy and ability with which it is conducted. Every considerable village has its paper, and Winnipeg has several. The Government has wisely encouraged private enterprise by providing free conveyance for all newspapers sent from the office of publication. The result is what might have been anticipated. Whereas in 1878 the total number of newspapers and periodicals posted throughout the Dominion was 39,700,000, it had risen in 1889 to considerably over 70,000,000, or at the rate of more than seventeen papers per head of the population. The telegraphic reports of news from all parts of Europe are more copious than the reports of Canadian and American intelligence in the London and provincial papers; whilst, owing to the difference in mean time an event occurring say in London at 6 p.m., and which cannot be reported even in the evening provincial papers of that day, may be, and often is known in Canada soon after noon on the day of its occurrence. News is also more assiduously collected in England for the Canadian and American press than for our own papers. I am writing on a Monday,

and have to-day read in my morning paper intelligence of a painful event which occurred in London early on Friday morning, and was reported in the Canadian papers of that day ; but of which a very limited portion of the English public were informed by a financial telegram from New York which appeared in a London paper on Saturday, and appears for the first time in the news columns of that and other London and provincial papers to-day.

But, excellent as in many respects are the Manitoban newspapers, there is much room for improvement ; in the absence of which the opinion, now freely expressed, that this is another direction in which the field is open for the profitable employment of English capital and enterprise, must be allowed to have considerable weight. The *Free Press*, which has the largest circulation, has missed the opportunity of acquiring proportionate weight. Its persistent, violent, and even ribald attacks upon certain public men exceed the limits of decency, are deprecated by men of every shade of political opinion, and have exposed it to almost innumerable libel suits, with the result of which it complacently expresses a satisfaction in which the public do not share.

It should, however, be recognised that in the past the *Free Press* has done, as its best friends hope that it may continue to do, good service in

forming and enlightening public opinion upon political, social, and agricultural topics. It has already had a life of more than twenty years; its issue is both daily and weekly, a leading feature of the latter being a verbatim report of a sermon by Dr. Talmage. But the rabid ferocity, and wearisome iteration through many columns, of its attacks upon public men is a feature, which, whilst depriving it of the respect and confidence of its *clientèle*, presents a vulnerable point of attack to rival journalists not more immaculate than itself. Its young opponent, the *Tribune*, which has just completed the third or fourth year of a troubled existence, has openly, and I believed calumniously charged it, now with being in the pay of the Canadian Pacific Railway, and again in that of the Jesuits, and muzzled by "the money-bags and boodlers"—whatever that may mean. A few months ago the *Tribune* wrote, "The *Free Press* contains since 1888 . . . 9,430 articles denunciatory of Greenway and Martin. By actual measurement, if these articles were tacked together, they would cover a distance of 62 miles." It has been shown "by actual measurement" that within this space of time the total column space of the *Free Press*, advertising columns included, has been less than 12½ miles; whilst the calculations of the *Tribune* would require eleven articles a day, each 34 feet

long, and covering a column space of 381 feet in every issue, or five times its entire surface. No wonder that Chief Justice Begbie, in delivering a judgment last year, thus addressed a prisoner: "I suppose you never think, read, nor write; or if you do, you get the newspapers edited by men just as ignorant as the purchasers."

The amenities of journalism are not understood in Manitoba. If the editor of the *Free Press* is described as "mercenary, a falsifier, and a slanderer," "the hireling of a corrupt and rascally combination," "a man utterly regardless of the truth, and utterly unscrupulous as to his methods," "too unsavoury for respectable columns, but even skunks have to be killed sometimes;" he too can, metaphorically, tomahawk the rival editor, and metaphorically brandish the scalp in the face of unedified readers. His invective lacks finish, and is as devoid of dignity as it is regardless of grammar.

There is also a slovenliness and an excess of slang about the news paragraphs of all the local papers, which is no longer excusable. Here is a sentence which might be paralleled by hundreds. Two men "were arraigned charged with having committed a breach of the piece." We are told that "the Right Hon. Sir James Hann" is the President of the Divorce Court; and that in a recent notorious case the lady "was notified on attach-

ment for her committal would be applied for." Worse still is the vulgarity of their news paragraphs. The arrest and committal of a notorious character is narrated under the headline—"Kennedy in the Cooler." "Billie for the boys," introduces the intelligence that the German Emperor had determined to enforce certain regulations for the protection of workmen. The Emperor's Address to the Officers of the Fleet is headed—"Wm. speaks Taffy"—taffy being Canadian for soft sawder or blarney. The words "Frank and Billy embrace" are considered a decent announcement of the meeting of the two Emperors at Berlin. "A Bloody Monster" is a no more seemly heading for a sermon on Temperance by Dr. Talmage. It is not surprising that Lord Aberdeen hesitated to give unreserved expression to his admiration of the country after seeing a report of a former speech introduced with the words "Taffy for the Dominion." These elegant extracts are not all culled from the same paper; but if the accomplished editor of the *Free Press* will take a kindly hint from a "Britisher," he may be perfectly assured that the influence and the circulation of a paper which is in many respects worthy to take high rank, will not suffer by a little regard for the susceptibilities of his more refined readers, and by a less vigorous use of his scalpel and his tomahawk.

CHAPTER VIII.

I HAD wished to devote a chapter to the important subjects of Education—with special reference to the University of Manitoba, for the endowment of which the Dominion Government has granted 150,000 acres of land—to the Constitution of the Provincial and Municipal Governments; to Taxation; and to the operation of the McKinley Tariff Act. But my limits are already exceeded. The class of readers for whom I write will probably be more interested in a few closing words of practical suggestion.

Believing, as I do, that for the right class of men no part of the world affords a better opening than Manitoba, I would earnestly counsel all who see their way to earning a tolerable livelihood at home, to forswear emigration. It involves sacrifices in many directions, to which no prudent man will unnecessarily expose himself. And with equal earnestness I would advise such as, for adequate reasons, desire to follow agricultural pursuits in a

country of which they can learn very little from books, to moderate their expectations of success. I don't know who the Hon. Robert Montagu may be ; but on the eve of leaving Canada I read a speech in which he grandiloquently described Manitoba and the North-West as corn-producing countries unequalled by any other on the face of the globe—which may be true enough. He proceeded, however, to tell his hearers that 60 bushels of wheat to the acre was no uncommon yield, whilst 40 bushels was but an average crop—which was sheer nonsense. It is this reckless extravagance of speech, on the part of people who should know better, that has been the bane of Manitoba, causing it to be ill-spoken of by disappointed and unsuitable settlers, who have gone out expecting to find it a land of Goshen to which the ordinary conditions of success did not apply. I have given instances, on reliable authority, of crops of wheat and barley yielding 50 bushels and upwards, and oats 70 bushels to the acre. But these are rare exceptions, and generally, though not always, upon a small selected acreage. A safe estimate for wheat, over a term of years, is 20 bushels ; and a prudent man will not base his calculations upon a higher yield, with perhaps 35 bushels of barley, and 40 of oats. It is perfectly true that in the experience of some farmers, and in a bad season like that of 1892,

these averages have been exceeded; but these are, relatively, the fortunate few, and their experience shows what is possible, not what the prudent man should calculate upon. With this caution, which cannot be too strongly emphasised, it is only fair to give some of the results obtained in 1890 and 1891, as reported to the Board of Agriculture.

From the Brandon district a farmer writes: "I came to Manitoba from Bruce County, Ontario, in 1882, having in all \$450 and my clothes. At present I consider myself worth at the lowest estimate \$5,000. This year I had 110 acres in wheat, and my crop averaged 25 bushels to the acre. The grain was excellent. I had 20 acres in oats, which averaged 50 bushels. I sowed about an acre with barley, and obtained 60 bushels."

Another writes from Griswold: "Had 60 bushels of wheat per acre, on 5 acres, and 37 bushels per acre on 250 acres."

Another, from Kemnay, writes: "One piece of 45 acres of summer fallow gave 2,240 bushels (of wheat) being an average of 52 bushels per acre, and 100 acres averaged 45 bushels per acre. I had also 45 acres of oats, which yielded 3,150 bushels, an average of 70 bushels per acre. Off 6 acres of barley I had 387 bushels."

The average yield of wheat in 1890 for the whole

province, as certified by the Government returns, was a little over 24 bushels to the acre. For 1891 the average yield per acre was—wheat 25·3; barley, 35·6; and oats, 48·3 bushels; an encouraging result for an unfavourable season. But exceptional cases, such as those I have cited, only tend to show how many must have obtained less than the average, and that an estimate of 20 bushels is as much as can be prudently entertained. And this will appear to the British farmer a less unsatisfactory yield when due account is taken of the relative cost of production in Great Britain and in Manitoba. It is an undoubted fact that the English farmer spends as much simply in manuring his land as the Manitoban does in seed, ploughing, sowing, harvesting, threshing, and marketing; whilst he uses no manure at all. The two items of tithe and taxes per acre, which the English farmer pays annually, would purchase, acre for acre, an unimproved farm in Manitoba. Mr. Edwards, one of the British delegate farmers who visited Manitôba, writes: "I have been engaged in cases of arbitration, and, as a valuer of farm crops in Wales for upwards of a quarter of a century, think I am entitled to venture an opinion upon a subject which must be of great interest to my fellow-countrymen in the Principality, as well as to Canadian farmers. I have endeavoured to understate rather than overstate the

productive capacity of the Canadian North-West, and this will be generally admitted when I state that my calculations are based upon a four years' average, one year of which was the worst that has been known for twelve years."

By a careful analysis, Mr. Edwards proceeds to show that the average gross returns are in Manitoba £3 15s. 8½d. per acre; the cost of production £1 18s. 6d.; and the net profit £1 17s. 2½d. per acre. In Wales, on the other hand, with an average crop of something over 32 bushels to the acre in the four years 1887-1890, the gross yield has been £6 12s. 11d.; expenses, allowing £1 per acre for straw and unexhausted manure, £6 6s. 2d.; leaving a balance of net profit of 6s. 9d. per acre, and no interest at all upon the working capital employed. That is an impartial and, I believe, a very accurate statement of the case as between farming in Great Britain and in Manitoba. The following is Mr. Edwards' estimate of expenses, which the English farmer may test by his own experience.

	£	s.	d.
Average rent of wheat-growing land	1	12	0
Tithe	0	6	8
Taxes	0	4	6
Manure, carting, and spreading	3	0	0
Ploughing, seed, and sowing	1	5	0
Harvesting, threshing, and marketing	0	18	0
	<hr/>	<hr/>	<hr/>
	7	6	2

The ideal emigrant is the small farmer possessed of some little capital. A man with practical experience in agriculture, and having £200 to £500 at his disposal, if he is industrious, sober, and provident, can hardly fail to do well. At the opposite pole are men who believe that they have attained a theoretical knowledge, and, however industrious and well-intentioned, it serves no better purpose than a theoretical knowledge of the laws of navigation would serve a landsman in a cyclone. Farming must be learnt in as practical a way as any trade or profession. The practical man is more likely to succeed without capital than the inexperienced man with £1000 in his pocket. A Scotchman from the Carberry district, writes: "I consider this the best country in the world for a poor man . . . all genuine workers can get along, and the prospects are most encouraging." Another, in the same neighbourhood, says, "I think this is the finest country in the world for all men willing to do honest work. Farm hands can get along famously. I know of several instances where such men have rapidly attained independence. This country also offers special inducements to farmers with a small capital to start with."

Undoubtedly a man who knows how to put his hand to anything may acquire experience by hiring himself out as a labourer, for a term which must be

determined by circumstances. For one who has everything to learn, the custom in Manitoba is to work with a practical farmer for twelve months for his maintenance. "I advise new-comers to hire themselves to farmers the first year," writes one of the "100 farmers." Another says, "A new-comer ought to work out the first year and learn the ways of the country." This is sound advice, but it should be understood that the advice to "hire out" applies to the agricultural labourer; an inexperienced man will, as a rule, receive no wages the first year. He works for his board and the acquisition of experience. He has everything to learn, makes many mistakes, and I have never known the arrangement to be satisfactory to the farmer or other than advantageous to the novice. For a young man who has the means, the wisest plan is, I believe, to pay a reasonable premium to a competent farmer for at least twelve months' practical experience and instruction. The system is doubtless open to abuse, and for that reason is sometimes condemned. But, given the competency of the farmer, and thorough conscientiousness in the discharge of the duty he assumes, I believe the advantage is all on the side of the pupil, who, however, should be on his guard against premium-hunting harpies. I could name not a few excellent farmers who, for a premium of £50 to £100, would receive, some of whom do

habitually receive, a young man into their homes, and turn him out in twelve months fairly well equipped for commencing a prosperous career. Such an arrangement is, I believe, preferable to the possibly less expensive one of attending an agricultural school; but there are reciprocal obligations, and, to prevent mutual disappointment, it is very desirable that it should be first ascertained that the individual entering upon it is suited to, and willing to embark upon, a life of hard labour.

With skilled agricultural labourers the case is different. They can readily earn good wages, and their labour is more economical to the farmer than that of the non-wage-earning "greenhorn." The Dominion Government has an agency at Winnipeg where the labourer can learn where work is most in request. But, in fact, at almost every town along the Canadian Pacific Railway, from Winnipeg to Elkhorn, farmers are generally on the look out in busy seasons for immigrants, who, if experienced farm-hands, can readily obtain employment at \$20 a month, with board. If such an one prefers the certainty of good wages to the risks of farming on his own account, a single fact will show what is possible to an industrious and steady man. "Patrick Buckley came out in 1882, has worked on a farm, hired ever since; has £300 in the bank."

As the labourer is always boarded, he may,

practically, save all his earnings ; and at the end of his third year a capable, industrious man, steady, and strong of purpose, may find himself in a position to take up a free grant of 160 acres of land, build a log cabin, and adequately stock his farm for all essential purposes. He will be wiser, however, if he goes on accumulating his earnings for another year or two, as every dollar tells in the efficiency of his equipment. If, before commencing to farm, he has saved enough to buy a cow, and a few pigs and fowls, he may rely upon his garden to produce nearly all besides that may be needful for his maintenance until his first crop is harvested and sold. I am supposing the case of a single man, but if he is married so much the better. His wife and children may either earn wages, or cultivate a garden, rear poultry, or look after a dairy, for all of which a farmer will afford a good servant reasonable facilities ; or, in default of these, a good four-roomed house may be built for £15 to £20. Young women and girls accustomed to housework may always command \$8 or \$10 a month, with board, in domestic service, the conditions of which are much less irksome than at home.

For mechanics, as a rule, there are better openings in England than in Manitoba. Men of this class with a strong inclination for farming may, and often do succeed, and greatly improve their circum-

stances. The only advice that can be given to such is, that before coming to a decision which may prove irrevocable, they should intelligently count the cost. They will have a new business to learn, and, in the absence of a positive enthusiasm for agricultural pursuits, will probably regret having embarked their savings in an industry of which they are as ignorant as the average agricultural labourer is of their particular trade. They will probably find no other course open to them but to acquire experience by working for a year without wages. Then, with industry, perseverance, thrift, and above all sobriety and a capacity to adapt themselves to new conditions, they may do well. I have known mechanics to earn over £1 a day—provident men, who gain a livelihood on their small farms, and save all that they earn by plying their craft. Carpenters, masons, and plasterers readily find occasional work in all settled districts.

Clerks and shop-assistants, who perhaps form the class most disposed to emigrate, are the last who can be advised to seek a home in Manitoba. Pluck and industry, a spirit that defies discouragement may, however, warrant the experiment. But these qualities will be severely tested. In their own callings, notwithstanding the rapid growth of the population and of the industries of the towns, employment will not easily be obtained. I have

found that not a few fathers of young men of this class hold the opinion that, if they ship their sons off to Manitoba with £50 or £100 in their pockets, they are bound to succeed. It is a fatal delusion. Rather, it would seem from illustrations already given, they are bound to commit all the stupidities of which youth is capable, and—a few more. It would be far better to give them no money at all, but either to secure for them a special training before going out, or to pay a premium to a competent farmer in Manitoba who would teach them the art of farming under the peculiar conditions of the industry in that province, and then leave them to shift for themselves. Mr. J. T. Wood, in his report, advises young men, before leaving England, to make themselves conversant with the best known methods of butter and cheese-making. The advice is excellent; for, as we have already seen, the dairy industry in Manitoba is one for which there is a great future. At present it is in a very backward state, but it is being rapidly developed into a fine art, and its prizes will fall to those who can produce the best article.

A stout heart, and two strong, willing hands are the best part of a man's equipment. Nothing else, indeed, can be said to be absolutely essential, and many have succeeded who had nothing else to start upon. "We want able-bodied men and women

who are not afraid of hard work," writes one of the "100 farmers" to the Board of Agriculture. "Let the croaker and drone stay away. We have no room for such, but the former are sure to succeed." Another says: "I think Manitoba as fine a country as any one could wish to settle in for farming: a man who is able and willing to work cannot help but get on." Such testimony might be multiplied indefinitely; but it is noteworthy that in every instance stress is laid upon the willingness to work, and even to endure privation for a time. Two years ago a young clerk in Manchester was thrown out of employment. His father placed him with a farmer in Manitoba, the premium paid exhausting his ability to assist his son in the calling of his choice. At the expiration of the year the young man hired out at good wages, was industrious, and providently accumulated his earnings. Last spring he took up a homestead, with every prospect of success. But he has a word of warning for young men of his own class at home. "It is very foolish," he writes, "for young men to come out here who are not fitted for this life." And the class is a large one.

It is not every one who can readily adapt himself to a new country. Yet, although in my intercourse with settlers I endeavoured to elicit their honest sentiments, and even invited complaint, I

only met with one isolated case of dissatisfaction. The English delegate farmers bear similar testimony. Mr. Scotson writes: "I met many men who a few years ago had come out to Canada with nothing but their hands and brains, who are now in good positions on fair farms, and glad that Canada is their present and future home. These men are mostly located on their own lands, and feel a freedom hitherto unknown; whilst they find the Canadians quite as English as themselves. It is hard to realise that this is the case so many thousand miles from England, yet it is undoubtedly the fact, and the farther west you get from Quebec the more English in character you find the people."

I have written to no purpose if I have not shown that, as an agricultural country, a proper estimate will place Manitoba in the first rank, with none superior in richness of resource, and even, all things considered, in the advantages of climate. Addressing the English delegate farmers last autumn, Lord Stanley stated that during his brief experience in the North-West, he had received a strong impression of bright prospects for the future of that great section of the Dominion. He was confident, he said, that when they had visited the prairie province their verdict would be such as to bring out from the old country the best class of agricultural settlers to set the prosperity of that

great region on a firm basis. The Marquis of Lorne has amusingly related how he sought in vain to discover grumblers. A settler whom he one day asked whether he had anything to complain of, remained for some moments meditatively silent. Presently his face brightened, and he exclaimed, "Yes; it is cold in the winter, and it is hot in the summer, and the dust makes me wash twice in the week!" To a similar question a Scotch woman answered: "Well, no; that is—I have not the English—but I wad say that the milk is too rich for the childer." Pity that milk too rich for the childer cannot be substituted for what goes by that name in many a town in England! But to bespeak commiseration for the man whose only grievance is that he must wash twice in the week would, I fear, be in vain.

Lord Aberdeen, in a speech at Winnipeg in October, 1890, said that while desiring information he had been on the look out for disappointment, but, he added, "I have not found many disappointed persons." His Lordship justly claims to speak as an impartial observer. "You will ask," he says, "have you met no grumblers? In any country there are dark-siders. It is not their fault, but it is constitutional in them. Lord Spencer told of a gentleman who took to fox hunting, who had a slight deformity, his head being slightly to one side.

On one occasion he had a nasty fall. His companions came up and found him badly knocked about. One of his legs was bent and they pulled it straight. They found his head at one side, and the poor man was almost unconscious ; but as they attempted to screw it round he managed to gasp out 'Born so.' I have met a few dark-siders, but after a few questions, I found out it was more constitutional in themselves than in the country. I shall have no difficulty in answering the question sometimes put to a visitor, How do you like our country? Mr. Scarth had been good enough to imply that I might be of some small help to the army of those who testify regarding this country. I am glad you will have such an authoritative report from those farmers. If I have an opportunity of speaking in public or in private, although I am not gifted with eloquence, by plain, unvarnished statements I will be able to testify of the magnificent openings of this great country, where there has been no little performance in the past, and there are boundless possibilities in the future."

The convictions to which Lord Aberdeen gives expression are the outcome of intelligent personal observation and experience. "I had an opportunity," he says, "of driving over a considerable part of Manitoba, and had an interesting experience among the Highland Crofters. Those excellent

people are now finding their feet, so to speak, and are in a very hopeful attitude over the resources and prospects of this country; because we all know that in the Western Highlands of Scotland, owing to climatic influences and other causes, the habits of the people are not of the continued pertinacious kind which characterises those of some parts of Scotland. Great credit is due to these men that they have got a foothold in their new position and look forward with hope and confidence." These Highland Crofters are located at Killarney, near the Pelican Lake in Southern Manitoba. They have nearly all gone in for "mixed" farming, and in spite of bad seasons are generally contented and prosperous. The leading Crofter in this settlement is John McLeod, with whom Lord Aberdeen had an interview. To his inquiries respecting the resources of the country and the position and prospects of the Crofters, McLeod replied, "Well, my Lord, I can tell you that it was a lucky day for myself and family when we went on board the steamboat that took us out of Scotland, and landed us in this fine country. I have three sons and they own 160 acres of land each. I own 160 acres myself, making a total of 640 acres. I and my sons work together on the land and we have about ninety acres under cultivation. We have three yoke of oxen, several cows and young stock. We will have about 900

bushels of wheat this season, and an ample supply of oats, barley, potatoes and different kinds of vegetables, and will have about 150 acres under cultivation next season. We are only three miles from timber at Pelican Lake. There is any amount of fish in the lake, and a large quantity of ducks and geese and plenty of wild turkeys and prairie chickens on the wheat fields. When the season for shooting comes in we can blaze away at them. We have no landlords here; no old country gamekeepers to arrest us for shooting game. Our carriages, horses, oxen, cows and farming implements are free of taxation here. We only pay \$30 a year taxes for the whole section of 640 acres.

"We all like this country. The soil is a black, vegetable loam, from eighteen to twenty-four inches deep, and a rich, marly subsoil several feet deep and a blue clay bottom. Several farmers here have raised crops of wheat for ten years in succession without any manure. I often think of our people in Scotland who are working all their lives for the landlords for just enough to keep soul and body together. Let them come to this country, where they can be free from the grasp of landlordism and become the owners of an estate of 160 acres of good land, as long as grass grows and water runs. We have plenty of room for them in this great North-West country, and I can now with confidence invite

them all to come where they can make comfortable homes for themselves and families."

The Earl then said to Mr. McLeod that his account was very good on the bright side, but that he wanted to hear about the dark side.

"Very well, my son," said Mr. McLeod, "if I would tell you anything about the dark side I would be telling you something that I know nothing about, because it has been all on the bright side with me since I came here. I am authorised to make this statement by the whole of the Crofters in this settlement. When I first arrived at Killarney I was offered \$2.50 per day for doing mason work, and the first job of mason work I done, I got \$2.50 a day. I can now get \$3 a day but I cannot leave my farm. There is plenty of work here for labourers and masons, but I prefer to stick to my farm, and I can say that any man who will work and till his farm properly, he can make a good living here."

It is worth while, once again, to contrast with this picture of contented and successful industry, the experience, at the same point of time, of settlers in Dakota, whence a great migration to Manitoba is now taking place of Canadians, who have learned, by painful experience, how shameless were the misrepresentations of American agents, who declared that its wheat farms "have become one of the

marvels of America," and that "British travellers are staggered by their fertility, by the superiority of the grain, and by the cheapness of its production." Mr. D. Galloway, a gentleman well known in Winnipeg, arrived there in October, 1890, after riding through Dakota from south to north. He said that, in passing through that State, he "found the crops almost total failures, and the country presenting a barren appearance. . . . At Minot, the average yield of grain was from two to three bushels per acre; eight miles S.W. from that town P. R. Undril had 35 acres from which he obtained two loads, yielding about 35 bushels, . . . Mr. Undril reported the whole country around him to be in the same position as himself, and the settlers were leaving as fast as they could get away." This statement Mr. Galloway confirms from his own experience. He did not find, he says, "a solitary one but was anxious to leave." He describes the settlers as "heartily sick of their position, and desirous of getting information about Manitoba."

Such information, of a reliable character, is readily obtainable, and it is a pleasure to refer to the singularly accurate information—free from any trace of exaggeration—which is supplied in lectures, and otherwise, by Mr. McMillan, the accredited agent in this country of the Government of Manitoba.

Manitoba has had its troubles; but amongst its

most contented settlers are those who have migrated from Ontario, the reputed El Dorado of the farmer. The following testimony of one of these may be accepted as authentic.

"I sold my farm in Ontario and came to Manitoba in the spring of 1881, bought a farm near the main line of the Canadian Pacific Railway, a short distance from where the rising and prosperous town of Carberry now stands, and went to work with a will, had good crops every year with the exception of one or two years in which the late grain got slightly frosted. Now that I am nine years in Manitoba I can say my accumulations are tenfold. With industry and a little economy there is nothing to stay the tide of wealth and comfort in Manitoba. I have been through a great part of the Eastern States and Canada, and this summer, in order to get a better knowledge of the resources of the continent, I took a trip to the coast and down through California, round through the Southern States; in all, I visited eleven states and no doubt some good country. Let the bad speak for itself, and also different climates, of which some were too hot, but taking everything into consideration I must say that Manitoba stands at the head."

Colonial life, in Manitoba as elsewhere, is only suited to those who possess the qualities which, generally speaking, would ensure their success at

home—enterprise and courage, with sobriety and industry; an aptitude to learn by their own successes and failures; and a readiness of resource, to meet and overcome difficulties and trials which they will be sure to encounter. The man who possesses these qualities need not hesitate because his financial resources are limited; but the man who has them not will find no compensation in the possession of means which incapacity, ignorance, and self-indulgence will quickly exhaust, leaving him a prey to disappointment and discontent.

I am frequently asked what amount of capital is requisite for a fairly comfortable start in Manitoba. This depends upon so many considerations that any estimate must be subject to modification. Most practical men, knowing the country, would advise the farmer of limited means to begin by renting an improved farm; he has then leisure to examine the country, select his homestead, and build house, stables, &c., without the loss of a season. One of the "100 farmers" writes: "Any one with a small capital to start with should do well in Manitoba, if he has energy. I would advise renting a farm the first year." "To those with capital," says another, "and who have no previous experience of farming, I would recommend the buying of an improved farm and they will save money; taking care that the houses and

stables are good and comfortable, with a good well and a good-sized slough or lake near by for the cattle in summer, with plenty of hay land."

The advice is excellent for those to whom it applies; but the vast majority of emigrants are without sufficient capital to be able to profit by it. Whilst I am desirous to dissuade such from forming a strained conception of what may be practicable, it may at least be said that hundreds have succeeded in Manitoba with no capital at all, whilst others with £300 or £400 have failed; experience, and a capacity for adaptation to the ways of a new country, or the want of it, being generally the cause. I have been favoured with a copy of a letter from a farmer near Brandon, dated the 14th of October, 1891, in which he says, "I came to Manitoba in 1881, and my sons followed me in 1883. This year we had 500 acres under crop; 400 acres of wheat averaged from 25 to 30 bushels per acre; 100 acres of oats averaged 60 bushels per acre. I consider the outlet good, and am satisfied that any one willing to work can get along all right in Manitoba, *no matter whether they start with or without capital.*" In illustration of what may be accomplished without capital, Mr. J. T. Wood mentions in his report a case which came under his own observation. Mr. John B. Watson, a native of Northallerton, had been a

gamekeeper in Yorkshire. Four years ago he arrived in Manitoba with only five cents in his pocket. Being willing to work, he earned good wages, saved his money, and bought 160 acres of land for £50. In 1890, he had 130 acres in wheat, 10 in oats, all very full crops. He had also, in addition to a team of oxen, 17 head of cattle and a comfortable house.

This is a well-authenticated case, and other such have been adduced ; but they are altogether exceptional. A plough and a yoke of oxen constitute a poor equipment to commence farming with, and in the long run it is the man who patiently labours and waits for two, three, or even four years, who will succeed the best. A young man, when he has acquired necessary experience, if he is strong, energetic, and not easily daunted by difficulties, may make a fair start with a capital of £100. If he has £200, he will not only escape many difficulties, but his success will be much more assured. With resources so limited, the position of the young farmer in England is almost hopeless; and it may be confidently affirmed that a sober, industrious man, with a capital too small for farming at home, will find that he can employ it to better advantage in Manitoba than in any other part of the world. The difficulties which he will have to encounter are, in the aggregate, no greater than the average

of troubles to be found at home; whilst, even in indifferent seasons, he will reap better harvests than in any other part of the world with the same outlay.

The case of a man with a family is very different. He must not only have a larger house, but as he will have to wait 16 or 18 months for his first crop, he must purchase provisions for that period. Suppose he goes out in April, his first care—unless he is wise enough to rent a farm—will be to build a house upon his homestead. This need not occupy more than four or five weeks. If he buys an improved farm, with 50 to 100 acres broken, it will cost him from \$8 to \$15 an acre—say £640 for a farm of 320 acres, which will include house and out-buildings. If, however, he elects to take up a Government grant of 160 acres and to buy another quarter section of unimproved land, the latter will cost him from \$2 to \$8 an acre according to location and quality; and this he may pay in instalments spread over nine years with 6 per cent. interest upon the unpaid balance. He would then require a capital of £200 to £250, to be laid out thus:—

House and stable	...	...	...	\$350.00
Stove and needful furniture	...	...	...	100.00
One yoke of oxen	...	...	...	120.00
One waggon	...	...	...	80.00

Plough and harrow	\$25.00
Spade and other small implements ...	25.00
Provisions for 18 months—say ...	200.00
Seed potatoes and oats... ..	15.00
Seed for next year's wheat crop ...	50.00
Two cows and half a dozen pigs ...	95.00
Hire of machinery with occasional extra labour	50.00

1,110.00

First year's payment on account of 160 acres—say	40.00
Second Ditto (including interest)—say	60.00

\$1,210.00 = £242

Liberal allowance is here made for every outlay, especially in the cost of provisions; as a single cow, and 3 or 4 fat hogs to be killed in the fall, with garden produce, will go far to supply his wants; whilst a temporary shanty, weather-proof and warm, may be built for less than \$200. His oxen will cost nothing, or next to nothing, for feed, and are more useful than horses for the heavy work of breaking. If he is prudent, however, he will grow 10 acres of oats the first year; the seed may be scattered on the sod, and two inches of soil turned over it. Good crops of potatoes may be grown in the same way; his breaking being thereby improved, and the land rendered cleaner for the next year's crop.

In his first year a farmer will easily break 40

acres, which will be ready for seeding in the following April. His wheat will be cut at the end of August, and sold, perhaps, in October. If he is only moderately fortunate, he will have a crop of 20 bushels to the acre, which at 60 cents a bushel will yield \$480, or £96. Should the price be 70 cents, he will realise £112, or if the yield should reach the low average of 1891, £140 for his first year's crop. Meanwhile, with the assistance of one labourer, he will have broken another 40 acres, and will have 80 acres under crop in his third year. It is unnecessary to carry the calculation further. Additional machinery and stock will absorb all profits which can be prudently calculated upon. But, with average seasons and prices, a practical farmer may reasonably expect, by the end of his fifth year, to have paid for his land, erected a suitable house and farm buildings, purchased all necessary machinery, a few head of cattle and a score or two of sheep, and to have a profitable dairy of four or five cows. He should also have at least 160 acres under wheat, with proportioned acreage of root crops and fodder corn; and his farm of 320 acres will be worth from £700 to £1,000. The man who can wait may sometimes buy an improved farm at a price greatly below its real value. The frontispiece to this volume represents an excellent house, built by a settler in his third

year, and, with 320 acres of good arable and pasture land, it is, I believe, now offered for £500.

To the English farmer, staggering under an annual rent which would buy out the fee simple of some of the best land in Manitoba; and to steady, industrious men of every class, who, disabusing their minds of the false notion that "any fellow can farm," are prepared for hard work and perhaps some privation in their early experience, I commend the words of an English settler which I find in the pages of the *Mark Lane Express* :—

"I see in the *Liverpool Mercury* that the Cheshire County Council advertised for four road inspectors at a salary of £200 a year, and had 454 applications for the post. Now, most of these men must be persons of education, and, no doubt, have some little income of their own. Why don't such men go to the colonies? they would, no doubt, get on well. This is the very country for people with a little capital and who like out-of-door life, and if they would set to work they would in a few years be in quite independent circumstances. Although we have had five poor harvests out of six, we lead the lives of country gentlemen compared with the majority of English farmers short of capital at the present time."

NOTE.—Emigrants are advised to book through to their destination, and by the Canadian Pacific Railway, *which is the only direct route*. The rates are lower for through tickets bought in England than for railway tickets issued at the Canadian or American ports, whilst between Liverpool and the Far West the saving in distance by the Canadian Pacific Railway route is fully 800 miles. Third-class passengers should provide themselves with food for the railway journey, as provisions are expensive at the wayside stations. For those who can afford it, the luxury of the dining-car and hotel service is unsurpassed, and in the elegance and comfort of its passenger equipment the Canadian Pacific Railway is without a rival. For third as for first-class passengers the sleeping cars are most comfortable.

Of the various transatlantic steamship companies the Allan Line has really no rival. For thirty-five years its splendid fleet of steamers carried the Canadian mails with absolute safety and remarkable regularity. The equipment of its boats for every class of passengers is all that could be desired, and the rates are a marvel of cheapness considering the quality and unlimited quantity of rations even to steerage passengers. Its accommodation for "Intermediate" passengers contrasts very favourably with that of some other lines, and

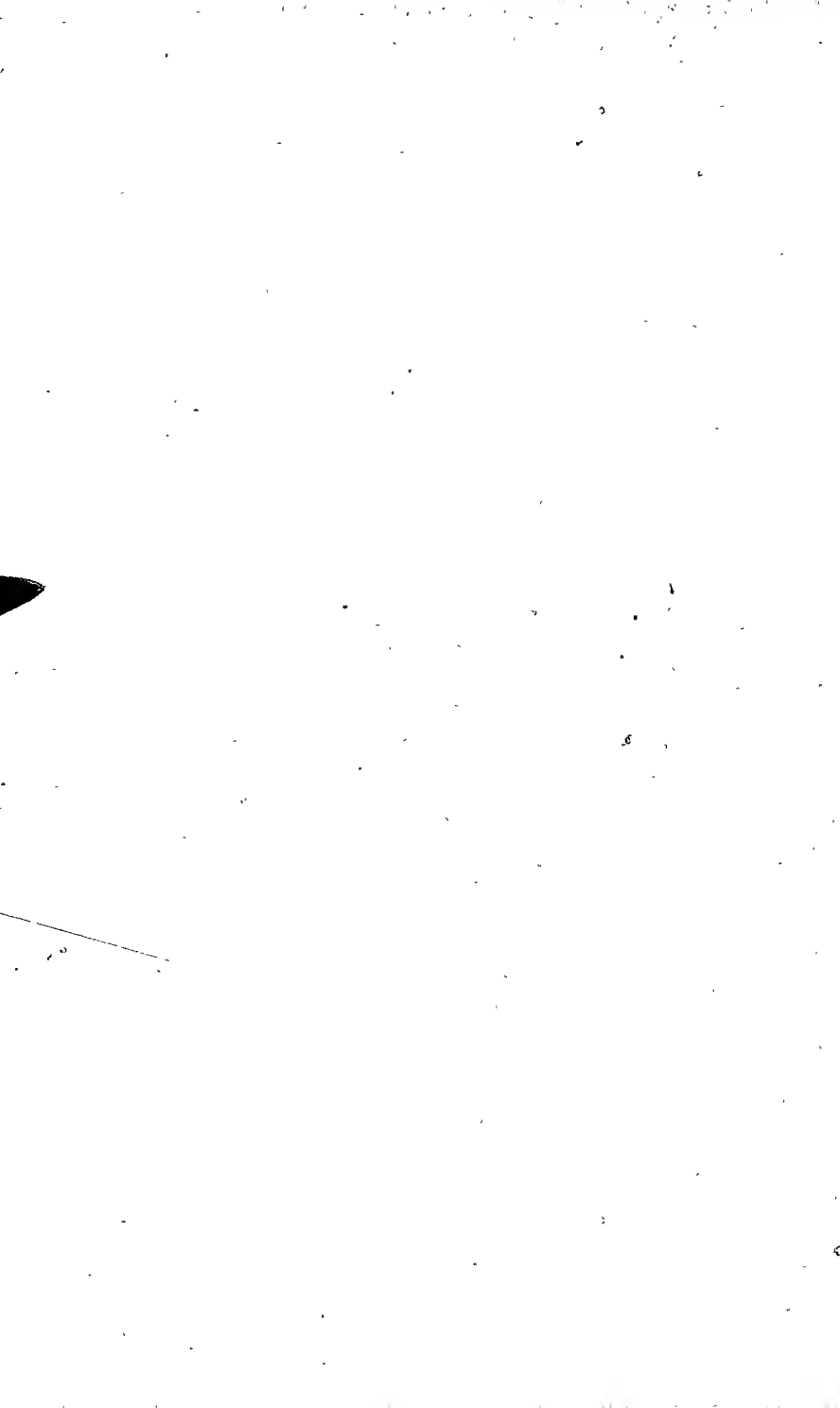
the comfort of these "floating hotels" renders the ten days' voyage to Quebec a very delightful experience. The courtesy and attention of the officers of every grade are proverbial. Every boat has its library, whilst games, concerts, and other amusements relieve the short voyage—too short, I have found it—of all monotony. Speaking from personal experience, I advise all emigrants to book through to their destination by the Allan Line and the Canadian Pacific Railway.

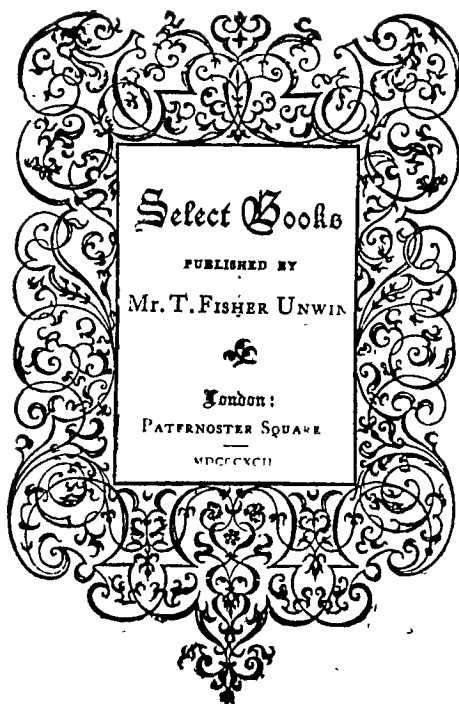
It should be added that the Dominion Government now offer the following bonuses to *bonâ-fide* settlers from the United Kingdom, who take up land within six months of their arrival in Canada:—\$15 (£3 1s. 8d.) to the head of a family, and half that sum to any adult member of the family taking up land. Fully a third of their passage money is thus returned to emigrants to any part of Manitoba, who should obtain forms of application for the bonuses from an authorised agent of the Allan Steamship Company, as without these the bonuses will not be granted.



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